L Number	Hits	Search Text	DB	Time stamp
1	3862	((544/326) or (544/328) or (544/329) or	USPAT;	2003/06/03 18:03
1		(544/330) or (544/331) or (544/332) or	US-PGPUB;	
1		(514/256) or (514/275)).CCLS.	EPO; JPO;	
			DERWENT	

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L12 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2003 ACS
     1994:508815 CAPLUS
AN
DN
     121:108815
     [(Benzodioxane, benzofuran or benzopyran)alkylamino]alkyl-substituted
TΤ
     quanidine selective vasoconstrictors
     Van Lommen, Guy Rosalia Eugene; De Bruyn, Marcel Frans Leopold; Janssens,
TN
     Walter Jacobus Joseph
     Janssen Pharmaceutica N.V., Belg.
PA
     PCT Int. Appl., 54 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                      KIND
                            DATE
                                           APPLICATION NO.
     PATENT NO.
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                                        WO 1993-EP435 19930219
     WO 9317017 A1 19930902
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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
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A
     CA 2117483
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                                           CN 1993-103671
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                      Α
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PRAI US 1992-842560
                     A2
                            19920227
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OS MARPAT 121:108815

AB The title compds. [I; A = bivalent radical; A1 = bivalent C1-3 alkanediyl radical; R1, R3, R4 = H, C1-6 alkyl; R2 = H, C1-6 alkyl, C3-6 alkenyl, C3-6 alkynyl; R7, R8 = H, halogen, C1-6 alkyl, OH, C3-6 alkenyl, C3-6 alkynyl, CN, CO2H, (un)substituted NH2; X = O, CH2, direct bond], which have selective vasoconstrictor activity, are prepd. and I-contg.

WO 1993-EP435

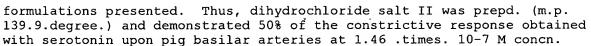
US 1994-256995

Α

Α3

19930219

19940729



IT 155427-97-7P 155429-39-3P 155429-45-1P 155429-56-4P 155429-59-7P 155429-63-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and selective vasoconstrictor activity of)

RN 155427-97-7 CAPLUS

RN 155429-39-3 CAPLUS

CN 2-Pyrimidinamine, N-[[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CH_2-NH & N \\ \hline \end{array}$$

RN 155429-45-1 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)

$$O$$
 CH_2 NH N

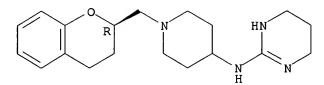
RN 155429-56-4 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]-1,4,5,6-tetrahydro-(9CI) (CA INDEX NAME)

RN 155429-59-7 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]-1,4,5,6-tetrahydro-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 155429-63-3 CAPLUS

CN 2-Pyrimidinamine, N-[[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]methyl]-1,4,5,6-tetrahydro-(9CI) (CA INDEX NAME)

$$O$$
 CH_2 N HN N

IT 155426-16-7P 155426-45-2P 155426-48-5P

155426-55-4P

RN 155426-16-7 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2-methyl-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]-1,4,5,6-tetrahydro-(9CI) (CA INDEX NAME)

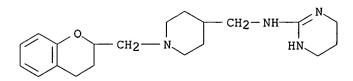
RN 155426-45-2 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]-1,4,5,6-tetrahydro-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 155426-48-5 CAPLUS

CN 2-Pyrimidinamine, N-[[1-[(3,4-dihydro-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]methyl]-1,4,5,6-tetrahydro-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 155426-55-4 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(3,4-dihydro-2-methyl-2H-1-benzopyran-2-yl)methyl]-4-piperidinyl]-1,4,5,6-tetrahydro-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

```
ring nodes :
   10 11 12 13 14 15
chain bonds :
   1-2 3-4 8-9 8-25 9-14 11-16 16-20 20-21
ring bonds :
   10-11 10-15 11-12 12-13
                             13-14
exact/norm bonds :
   1-2 3-4 8-9 8-25 11-16
                             16-20 20-21
exact bonds :
   9-14 10-11 10-15 11-12 12-13 13-14 14-15
G1:CH2,SO2,[*1],[*2]
G2
G3:C,O,N
Match level :
   1:CLASS 2:CLASS 3:CLASS 4:CLASS 8:CLASS 9:CLASS 10:Atom 11:Atom 12:Atom 13:Atom
   14:Atom 15:Atom 16:CLASS 20:CLASS 21:Atom 25:Atom
Generic attributes :
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   Type of Ring System : Monocyclic
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chain nodes :

Element Count :

Node 25: Limited

1 2 3 4 8 9 16 20

C,C4 17,N2 S,S0 O,O0

10/079,452 (species - Ex17)

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 1840

L1 SCREEN CREATED

=> screen 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L2 SCREEN CREATED

=>

Uploading C:\STNEXP4\QUERIES\10079452 (species).str

L3 STRUCTURE UPLOADED

=> que L3 AND L1 NOT L2

L4 QUE L3 AND L1 NOT L2

=> d 14

L4 HAS NO ANSWERS

L1 SCR 1840

L2 SCR 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L3 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation. L4 QUE L3 AND L1 NOT L2

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1.9% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS:

EXCEEDS 1000000

PROJECTED ANSWERS:

EXCEEDS 0

L5 0 SEA SSS SAM L3 AND L1 NOT L2

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ENTER SCREEN EXPRESSION OR (END):end

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L6 SCREEN CREATED

10/079,452 (species - Ex17)

=> screen 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L7 SCREEN CREATED

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Uploading C:\STNEXP4\QUERIES\10079452 (species - ex17).str

STRUCTURE UPLOADED

=> que L8 AND L6 NOT L7

L9 QUE L8 AND L6 NOT L7

=> d 19

L9 HAS NO ANSWERS

L6 SCR 1840

L7 SCR 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047

L8

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation. QUE L8 AND L6 NOT L7

3 ANSWERS

332 ANSWERS

=> s 19 sss sam

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9.3% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

208458 TO 220862 PROJECTED ITERATIONS: . 303 то 983 PROJECTED ANSWERS:

3 SEA SSS SAM L8 AND L6 NOT L7 L10

=> s 19 sss ful

FULL SEARCH INITIATED 19:32:33 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 212841 TO ITERATE

100.0% PROCESSED 212841 ITERATIONS

SEARCH TIME: 00.00.05

332 SEA SSS FUL L8 AND L6 NOT L7

=> s 111

L12 54 L11

=> d 112 1-54 bib, ab, hitstr

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L12 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2003 ACS
    2003:319721 CAPLUS
     138:321292
DN
     Preparation of 2,4,5-trisubstituted pyrimidines as cyclin dependent kinase
ΤI
     inhibitors
IN
     Dahmann, Georg; Himmelsbach, Frank; Wittneben, Helmut; Pautsch, Alexander;
     Prokopowicz, Anthony S.; Krist, Bernd; Schnapp, Gisela; Steegmaier,
    Martin; Lenter, Martin; Schoop, Andreas; Steurer, Steffen; Spevak, Walter
     Boehringer Ingelheim Pharma K .- G., Germany; Boehringer Ingelheim
PA
     Pharmaceuticals, Inc.; Boehringer Ingelheim International G.m.b.H.
     PCT Int. Appl., 278 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     German
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                                                            DATE
                            20030424
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PΙ
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             GM, HR, HU, ID, IL, HN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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             NE, SN, TD, TG
PRAI US 2001-330145P
                       Ρ
                            20011017
    Title compds. I [R1 = H, alkyl; R2 = (un)substitute alkyl; R3 = H, alkyl;
     R4 = (un)substitute alkyl; R5 = halo] and their pharmaceutically
     acceptable salts were prepd. For example, condensation of
     thiocyanatopyrimide II, e.g., prepd. from 3,4-dichloroaniline and
     2-chloro-4-thiocyanato-5-nitropyrimidine in one step, and
                                                                                .
     acetylaminoethylamine provided trisubstituted pyrimidine III in 88% yield. 14
     In CDK1/CyclinB1 kinase inhibition studies, 88-examples of compds. I
     exhibited IC50 values more than 100 nM. Compds. I are claimed useful for
     the treatment of diseases characterized by abnormal cell proliferation.
     514833-59-1P, 2-(3,4-Dichlorophenylamino)-4-(1-benzyl-4-
IT
     piperidinylamino)-5-trifluoromethylpyrimidine 514835-58-6P,
     2-(4-Chlorophenylamino)-4-(1-benzyl-4-piperidinylamino)-5-nitropyrimidine
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (drug candidate; prepn. of trisubstituted pyrimidines as cyclin
        dependent kinase inhibitors)
RN
     514833-59-1 CAPLUS
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INDEX NAME NOT YET ASSIGNED

CN

RN 514835-58-6 CAPLUS CN INDEX NAME NOT YET ASSIGNED

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 2 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
AN
     2003:154244 CAPLUS
DN
     138:187786
ΤI
     Preparation of pyrimidinylthiazoles as antiinflammatories.
TN
     Love, Christopher John; Van Wauwe, Jean Pierre Frans; De Brabander, Marc
     J.; Moses, Roger Clive; Goncharenko, Mykhalyo; Cooymans, Ludwig Paul;
     Vandermaesen, Nele; Diels, Gaston Stanislas Marcella; Sibley, Anthony
     William; Noula, Caterina
     Janssen Pharmaceutica N.V., Belg.
PA
SO
     PCT Int. Appl., 97 pp.
     CODEN: PIXXD2
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DT
     Patent
LА
     English
FAN.CNT 1
                            DATE
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                                           APPLICATION NO.
                                                             DATE
                            20030227
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             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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             TJ, TM
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             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRAI EP 2001-203088
                       Α
                            20010813
OS
    MARPAT 138:187786
AB
     Use of title compds. [I; Z = halo, alkyl; hydroxyalkyl, carboxyalkyl,
     cyanoalkyl, aminoalkyl, aminoalkyl, aminocarbonylalkyl, alkoxyalkyl,
     polyhaloalkyl, alkoxy, cyano, amino, aminocarbonyl, aminocarbonyl,
     alkyloxycarbonyl, alkylcarbonyloxy, etc.; Q = (substituted) cycloalkyl, .
     furyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, pyridyl,
     pyrimidinyl, pyrazinyl, pyridazinyl, benzothiazolyl, benzoxazolyl,
     benzimidazolyl, indazolyl, imidazopyridyl, etc.; L = substituted Ph,
     (substituted) monocyclic 5-6 membered partially satd. or arom.
     heterocycle, bicyclic partially satd. or arom. heterocycle] for the manuf.
     of a medicament for the prevention or the treatment of diseases mediated
     through tumor necrosis factor-alpha (TNF-.alpha.) and/or interleukin-12
     (IL-12), is claimed. Thus, Me 3-[4-methyl-2-(4-methyl-2)]
     trifluoromethylphenyl)thiazol-5-yl]-3-oxopropanoate was added to a mixt.
     prepd. from NaOMe and diguanidine carbonate in EtOCH2CH2OH followed by 3 h
     reflux to give 76% 5- (2-aminopyrimidin-4-yl)-4-methyl-2-(4-
     trifluoromethylphenyl)thiazole. The latter at 10-8 M gave 92% inhibition
     of IL-12p70.
IT
     499796-66-6P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of pyrimidinylthiazoles as antiinflammatories)
RN
     499796-66-6 CAPLUS
CN
     2-Pyrimidinamine, 4-[4-methyl-2-[4-(trifluoromethyl)phenyl]-5-thiazolyl]-N-
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[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 3 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
     2002:964146 CAPLUS
AN
DN
     138:39187
     Preparation of piperidinecarboxylates and related compounds as NMDA NR2B
TI
     receptor antagonists for the treatment or prevention of migraine.
IN
     Allen, Christopher; Koblan, Ken S.; Sleeth, Timothy
PA
     Merck & Co., Inc., USA
SO
     PCT Int. Appl., 185 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
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                      KIND
     PATENT NO.
                                           APPLICATION NO.
                                                            DATE
                           (20021219
PI
     WO 2002100352
                       A2
                                           WO 2002-US21069
                                                            20020607
                            20030327
     WO 2002100352
                       A3
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-297672P
                            20010612
     A method for treating or preventing migraines comprises administration of
     an NR2B receptor antagonist (no data). The invention also encompasses the
     combination of an NR2B antagonist with a cyclooxygenase-2 selective
     inhibitor, a calcitonin gene-related peptide receptor (CGRP) ligand, a
     leukotriene receptor antagonist, or a 5HT1B/1D agonist for the treatment
     or prevention of migraines. Thus, 4-hydroxybenzoic acid,
     1-hydroxybenzotriazole hydrate, benzyl 4-(aminomethyl)piperidine-1-
     carboxylate (prepn. given), and Et3N in DMF were treated with
     1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride and the mixt.
     allowed to stir at room temp. for 18 h to give 4-[(4-
     hydroxybenzoylamino)methyl]piperidine-1-carboxylic acid benzyl ester.
IT
     455265-37-9P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (prepn. of piperidinecarboxylates and related compds. as NR2B receptor
        antagonists for the treatment or prevention of migraine)
RN
     455265-37-9 CAPLUS
CN
     1-Piperidinecarboxylic acid, 4-[[[2-(methylthio)-4-
     pyrimidinyl]amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX
     NAME)
```

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

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IT
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     455266-25-8P 455266-27-0P 455266-28-1P
     455266-98-5P 455267-18-2P 455267-73-9P
     455267-78-4P 455267-93-3P 455290-15-0P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of piperidinecarboxylates and related compds. as NR2B receptor
        antagonists for the treatment or prevention of migraine)
RN
     455265-24-4 CAPLUS
     1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, phenylmethyl
CN
     ester (9CI) (CA INDEX NAME)
```

RN 455265-30-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-,
(4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-35-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-36-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & &$$

RN 455265-38-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-39-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(pyrazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$N$$

$$N$$

RN 455265-44-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-45-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-51-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,6-dihydro-6-oxo-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$0$$

RN 455265-56-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-59-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \text{C1} \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & & \\ \text{O} \end{array}$$

RN 455265-66-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-69-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3,4-dihydro-3-oxopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-71-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-73-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-74-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$N$$

$$Me$$

$$N$$

$$N$$

RN 455265-75-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
Me & & \\
N - C - O - CH_2
\end{array}$$

RN 455265-76-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$N$$

$$N$$

RN 455265-77-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-79-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph-CH}_2-\text{O-C} \\ \text{O} \end{array}$$

RN 455265-80-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-81-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$NH_2$$
 NH_2
 $C-O-CH_2-Ph$
 NH_2
 NH_2

RN 455265-82-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-83-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-84-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$F$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-85-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-cyclopropylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-86-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2\text{-CH}_2\text{-} & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-89-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-90-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]

RN 455265-93-7 CAPLUS

CN 4-Piperidinemethanamine, 1-(phenoxyacetyl)-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$PhO-CH_2-C$$

$$0$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-94-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-95-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 455265-98-2 CAPLUS

CN 4-Piperidinemethanamine, N-(4-methyl-2-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455265-99-3 CAPLUS

CN 4-Piperidinemethanamine, N-(3-methylpyrazinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & &$$

RN 455266-00-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-methylphenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ N & \\ N & & \\ N &$$

RN 455266-01-0 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-fluorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & S \\
 & S \\
 & O \\$$

RN 455266-03-2 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[(2-phenylethyl)sulfonyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C & CH_2 - NH_2 \\
\hline
C - NH_2 \\
\hline
C$$

RN 455266-04-3 CAPLUS

CN 4-Piperidinemethanamine, N-(3-chloropyrazinyl)-1-[(2-phenylethyl)sulfonyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 \\ CH_2 - NH \\ \hline \\ D \\ \end{array}$$

RN 455266-05-4 CAPLUS

CN 4-Piperidinemethanamine, N-(5-methyl-4-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2\text{-CH}_2\text{-S} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-06-5 CAPLUS

CN 4-Piperidinemethanamine, N-(4-amino-5-fluoro-2-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455266-07-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-fluorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ N & & & \\ NH-CH_2 & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-11-2 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-pyrazinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{CH}_2-\text{S} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-12-3 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-4-pyrimidinyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{CH}_2-\text{S} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-14-5 CAPLUS

CN 4-Piperidinemethanamine, N-(4-amino-2-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455266-15-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-chlorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & & \\ N & \\ NH-CH_2 & \\ 0 & \\ \end{array}$$

RN 455266-21-4 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-methanamine, 8-[(2-phenylethyl)sulfonyl]-N-2-pyrimidinyl-, (3-exo)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455266-22-5 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylcyclopropyl)carbonyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & \\ C & N \end{array}$$

RN 455266-25-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[1-oxo-4-(2-thienyl)butyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

RN 455266-27-0 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-8-carboxylic acid, 3-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester, (3-exo)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455266-28-1 CAPLUS

CN 4-Piperidinemethanamine, 1-(1-oxo-3-phenylpropyl)-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$Ph-CH_2-CH_2-C$$

RN 455266-98-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C1 & & & \\
N & & C-O-CH_2
\end{array}$$

RN 455267-18-2 CAPLUS

CN 4-Piperidinemethanamine, N-(2-chloro-5-methyl-4-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455267-73-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455267-78-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5,6-dichloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
N & \text{NH-} CH_2 \\
N & \text{C1} \\
C1 & \text{C} \\
C & \text{O} \\
CH_2 - Ph \\
0
\end{array}$$

RN 455267-93-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$C1$$

$$N$$

● HCl

RN 455290-15-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

IT 455267-76-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of piperidinecarboxylates and related compds. as NR2B receptor antagonists for the treatment or prevention of migraine)

RN 455267-76-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5-chloro-2,6-bis(methylthio)-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

SMe
$$C-O-CH_2-Ph$$
MeS $C1$

IT 455267-15-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of piperidinecarboxylates and related compds. as NR2B receptor antagonists for the treatment or prevention of migraine)

RN 455267-15-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[[(2,4-dimethoxyphenyl)methyl]amino]-6-methyl-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

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ANSWER 4 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
     2002:676010 CAPLUS
AN
DN
     137:216875
TI
     Preparation of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B
     antagonists
IN
     Claiborne, Christopher F.; Butcher, John W.; Claremon, David A.; Libby,
     Brian E.; Liverton, Nigel J.; Munson, Peter M.; Nguyen, Kevin T.;
     Phillips, Brian; Thompson, Wayne; McCauley, John A.
                                                                  Appl. PCT-
     Merck & Co., Inc., USA
PA
     PCT Int. Appl., 208 pp.
SO
     CODEN: PIXXD2
DΤ
     Patent
LА
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                              DATE
                                            ______
     WO 2002068409
                       A1
                            20020906
                                          WO 2002-US5226
                                                              20020220
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
         UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                            20021107
                                          US 2002-79452
                                                              20020220
     US 2002165241
                       A1
                            20010223 - P. NOV.
PRAI US 2001-271100P
     MARPAT 137:216875
AΒ
     BQ1(X)ANHQ2 [Q1 = 5-7 membered N-contq. nonarom. ring, azabicyclooctyl; Q2
     = 5-6 membered (substituted) heteroaryl ring; A = alkylene; B =
     Ar(CH2)0-302C, Ar(CH2)0-3S02, etc.; Ar = (substituted) aryl, heteroaryl; X
     = H, OH, F, alkyl, alkoxy, NH2, O], were prepd.
                                                       Thus,
     1-[(benzyloxy)carbonyl]-4-piperidinecarboxylic acid, 4-aminopyridine, EDC,
     and HOAt were kept 4 h in DMF to give the amide, which was reduced with
     BH3. THF to give benzyl 4-[(4-pyridylamino)methyl]-1-piperidinecarboxylate.
     Title compds. showed IC50's of <50 .mu.M for inhibition of NR1A/2B NMDA **
     receptor activation.
     455265-24-4P 455265-30-2P 455265-31-3P
IT
     455265-35-7P 455265-36-8P 455265-37-9P
     455265-38-0P 455265-39-1P 455265-44-8P
     455265-45-9P 455265-51-7P 455265-56-2P
     455265-59-5P 455265-66-4P 455265-69-7P
     455265-71-1P 455265-73-3P 455265-74-4P
     455265-75-5P 455265-76-6P 455265-77-7P
     455265-79-9P 455265-80-2P 455265-81-3P
     455265-82-4P 455265-83-5P 455265-84-6P
     455265-85-7P 455265-86-8P 455265-89-1P
     455265-90-4P 455265-93-7P 455265-94-8P
     455265-95-9P 455265-98-2P 455265-99-3P
     455266-00-9P 455266-01-0P 455266-03-2P
     455266-04-3P 455266-05-4P 455266-06-5P
     455266-07-6P 455266-11-2P 455266-12-3P
     455266-14-5P 455266-15-6P 455266-21-4P
     455266-22-5P 455266-25-8P 455266-27-0P
     455266-28-1P 455266-30-5P 455266-31-6P
     455266-32-7P 455266-33-8P 455266-34-9P
     455266-35-0P 455266-36-1P 455266-37-2P
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455266-40-7P 455266-41-8P 455266-42-9P
455266-43-0P 455266-44-1P 455266-46-3P
455266-47-4P 455266-48-5P 455266-50-9P
455266-51-0P 455266-52-1P 455266-53-2P
455266-54-3P 455266-55-4P 455266-56-5P
455266-57-6P 455266-58-7P 455266-60-1P
455266-61-2P 455266-62-3P 455266-63-4P
455266-64-5P 455266-65-6P 455266-67-8P
455266-68-9P 455266-69-0P 455266-70-3P
455266-72-5P 455266-73-6P 455266-74-7P
455266-75-8P 455266-76-9P 455266-78-1P
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455266-85-0P 455266-86-1P 455266-87-2P
455266-88-3P 455266-89-4P 455266-91-8P
455266-92-9P 455266-93-0P 455266-94-1P
455266-96-3P 455266-97-4P 455266-98-5P
455266-99-6P 455267-00-2P 455267-02-4P
455267-03-5P 455267-04-6P 455290-08-1P
455290-10-5P 455290-13-8P 455305-07-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (claimed compd.; prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidine
   s as NMDA/NR2B antagonists)
455265-24-4 CAPLUS
1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, phenylmethyl
ester (9CI)
            (CA INDEX NAME)
```

$$Ph-CH_2-O-C$$

$$O$$

$$O$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN

CN

RN 455265-30-2 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-,
(4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 455265-35-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & \\ & & \\ \end{array}$$

RN 455265-36-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & & \\ & &$$

RN 455265-37-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-(methylthio)-4-pyrimidinyl]amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{MeS} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 455265-38-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$CH_2-NH$$

$$CH_2-NH$$

$$CH_2-NH$$

RN 455265-39-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(pyrazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-44-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-45-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C \\ O$$

RN 455265-51-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,6-dihydro-6-oxo-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$O$$

$$O$$

RN 455265-56-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

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RN 455265-59-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-66-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-69-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3,4-dihydro-3-oxopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

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$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-71-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$O$$

$$CH_2-NH$$

$$N$$

$$N$$

RN 455265-73-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 & 0 \\ N & C-O-CH_2-Ph \end{array}$$

RN 455265-74-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

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$$Ph-CH_2-O-C$$

$$N$$

$$Me$$

$$N$$

RN 455265-75-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
Me & & \\
N - C - O - CH_2
\end{array}$$

$$\begin{array}{c|c}
N - C - O - CH_2
\end{array}$$

RN 455265-76-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-77-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$CH_2-NH$$

$$C1$$

RN 455265-79-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-80-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-81-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-82-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-83-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-84-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$Ph-CH_2-O-C$$

$$O$$

RN 455265-85-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-cyclopropylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$CH_2-O-C-N$$

$$CH_2-NH$$

$$N$$

$$F$$

RN 455265-86-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ \text{Ph-CH}_2-\text{CH}_2-\text{S} \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-89-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyi)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C \\ || \\ O$$

RN 455265-90-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

455265-93-7 CAPLUS RN

4-Piperidinemethanamine, 1-(phenoxyacetyl)-N-2-pyrimidinyl- (9CI) (CA CN INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{PhO-CH}_2-C & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

455265-94-8 CAPLUS RN

1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, CN (4-methylphenyl) methyl ester (9CI) (CA INDEX NAME)

RN455265-95-9 CAPLUS

1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-; CN (4-fluorophenyl) methyl ester (9CI) (CA INDEX NAME)

RN 455265-98-2 CAPLUS

CN 4-Piperidinemethanamine, N-(4-methyl-2-pyrimidinyl)-1-[(2phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455265-99-3 CAPLUS

CN 4-Piperidinemethanamine, N-(3-methylpyrazinyl)-1-[(2-phenylethyl)sulfonyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ \text{Ph-CH}_2-\text{CH}_2-\text{S} \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-00-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-methylphenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \hline & N \\ & & N \\ & & N \\ & & & \\ & &$$

RN 455266-01-0 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-fluorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 455266-03-2 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[(2-phenylethyl)sulfonyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & O \\ \parallel & C - NH_2 \\ \hline Ph-CH_2-CH_2-S & \parallel & O \\ \hline O & N & O \\ \hline \end{array}$$

RN 455266-04-3 CAPLUS

CN 4-Piperidinemethanamine, N-(3-chloropyrazinyl)-1-[(2-phenylethyl)sulfonyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\$$

RN 455266-05-4 CAPLUS

CN 4-Piperidinemethanamine, N-(5-methyl-4-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455266-06-5 CAPLUS

CN 4-Piperidinemethanamine, N-(4-amino-5-fluoro-2-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

F
$$N$$
 $NH-CH_2$
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 $NH-CH_2$
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 $NH-CH_2$
 $NH-CH_2$
 $NH-CH_2$
 $NH-CH_2$

RN 455266-07-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-fluorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O & F \\
 & \parallel & \\
 & N - S - CH_2 - CH_2 - CH_2
\end{array}$$

RN 455266-11-2 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-pyrazinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2\text{-CH}_2\text{-S} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-12-3 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylethyl)sulfonyl]-N-4-pyrimidinyl-(9CI) (CA INDEX NAME)

RN 455266-14-5 CAPLUS

CN 4-Piperidinemethanamine, N-(4-amino-2-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455266-15-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-chlorophenyl)ethyl]sulfonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

RN 455266-21-4 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-methanamine, 8-[(2-phenylethyl)sulfonyl]-N-2-pyrimidinyl-, (3-exo)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455266-22-5 CAPLUS

CN 4-Piperidinemethanamine, 1-[(2-phenylcyclopropyl)carbonyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & CH_2-NH & N \\ \hline \\ Ph & C-N & N \end{array}$$

RN 455266-25-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[1-oxo-4-(2-thienyl)butyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

RN 455266-27-0 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-8-carboxylic acid, 3-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester, (3-exo)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455266-28-1 CAPLUS

CN 4-Piperidinemethanamine, 1-(1-oxo-3-phenylpropyl)-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$Ph-CH_2-CH_2-C \\ 0 \\ N \\ N \\ N \\ N$$

RN 455266-30-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

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RN 455266-31-6 CAPLUS

CN 1-Piperidinecarboxamide, 4-[[(3-chloropyrazinyl)amino]methyl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 455266-32-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[6-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$H_2N = CH_2$$
 N
 N
 $N + CH_2$
 N
 $N + CH_2$
 N
 $N + CH_2$

RN 455266-33-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(1-methylethoxy)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-34-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C1 & N - C - C - CH_2
\end{array}$$

$$\begin{array}{c|c}
N - C - C - CH_2
\end{array}$$

RN 455266-35-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-cyanopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
O \\
| \\
C - O - CH_2 - Ph \\
N \\
N \\
CN
\end{array}$$

RN 455266-36-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-37-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxypyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455266-40-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, 2,3-dihydro-1H-inden-2-yl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ \hline & & & \\ \hline & & & \\ \hline \end{array}$$

RN 455266-41-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

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RN 455266-42-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-ethoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-43-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-cyano-3-methoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-44-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxy-5-methylpyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-46-3 CAPLUS

CN 4-Piperidinemethanamine, N-(3-methoxypyrazinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-47-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxy-5-methylpyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

Me NH
$$\sim$$
 NH \sim CH \sim NH \sim

RN 455266-48-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4,5-dimethyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Me NH
$$\sim$$
 NH \sim CH₂ \sim Ph

RN 455266-50-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2-fluorophenyl)cyclopropyl]carbony 1]-N-(3-methoxypyrazinyk)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-51-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4,5-dimethyl-2-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Me} & & & \\ & & & \\ \text{Me} & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 455266-52-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-53-2 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2,6-difluorophenyl)cyclopropyl]car bonyl]-N-(3-methoxypyrazinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-54-3 CAPLUS

CN 4-Piperidinemethanamine, N-(5-cyano-3-methoxypyrazinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-55-4 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2-fluorophenyl)cyclopropyl]carbony 1]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-56-5 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2,6-difluorophenyl)cyclopropyl]car bonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-57-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2,3-difluorophenyl)cyclopropyl]car bonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

RN 455266-58-7 CAPLUS

CN 4-Piperidinemethanamine, N-(5-methyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-60-1 CAPLUS

CN 4-Piperidinemethanamine, N-(4,5-dimethyl-2-pyrimidinyl)-1-[[(1R,2R)-2-(2-fluorophenyl)cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute spereochemistry.

RN 455266-61-2 CAPLUS

CN 4-Piperidinemethanamine, N-(3-methoxy-5-methylpyrazinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-62-3 CAPLUS

CN 4-Piperidinemethanamine, 4-fluoro-N-(5-methyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-63-4 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-(2,6-difluorophenyl)cyclopropyl]car bonyl]-N-(4,5-dimethyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

35

Absolute stereochemistry.

RN 455266-64-5 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-fluorophenyl)cyclopropyl]carbonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

RN 455266-65-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,6-difluorophenyl)cyclopropyl]carbonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
F & O \\
C & N
\end{array}$$

$$\begin{array}{c|c}
CH_2 - NH & N \\
F & O \\
F$$

RN 455266-67-8 CAPLUS

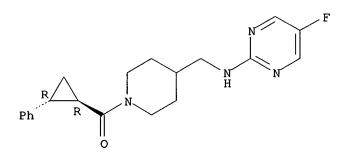
CN 4-Piperidinemethanamine, 1-[[2-(2,3-difluorophenyl)cyclopropyl]carbonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

RN 455266-68-9 CAPLUS

CN 4-Piperidinemethanamine, N-(5-fluoro-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyll- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 455266-69-0 CAPLUS

CN 4-Piperidinemethanamine, N-(4,5-dimethyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-70-3 CAPLUS

CN 4-Piperidinemethanamine, N-(5-bromo-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-72-5 CAPLUS

CN 4-Piperidinemethanamine, N-(5-ethyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-73-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-methylphenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\stackrel{\mathsf{Me}}{ } \stackrel{\mathsf{O}}{ } \stackrel{\mathsf{CH}_2-\mathsf{NH}}{ } \stackrel{\mathsf{N}}{ } \stackrel{\mathsf{N}}{ }$$

RN 455266-74-7 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-fluorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} F & O & CH_2-NH & N \\ \hline & N & N \\ \hline \end{array}$$

RN 455266-75-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(3-fluorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

RN 455266-76-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,6-difluorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl-(9CI) (CA INDEX NAME)

RN 455266-78-1 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,3-difluorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ & & \\ \end{array}$$

RN 455266-79-2 CAPLUS

CN 4-Piperidinemethanamine, N-(5-ethynyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-80-5 CAPLUS

CN 4-Piperidinemethanamine, N-[5-(cyclopropylethynyl)-2-pyrimidinyl]-1[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455266-81-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-methylphenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

RN 455266-82-7 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(4-chlorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{O} & \text{CH}_2\text{-NH} \\ \hline \\ \text{C} & \text{N} \end{array}$$

RN 455266-83-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-methoxyphenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OMe} & \text{O} \\ \hline \\ \text{C} & \text{N} \end{array}$$

RN 455266-84-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,4-difluorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} F & O & CH_2-NH & N \\ \hline & C & N & N \\ \end{array}$$

RN 455266-85-0 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(3-methylphenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

$$\bigcap_{Me}^{O} \bigcap_{C-N}^{C+2-NH} \bigcap_{Me}^{N}$$

RN 455266-86-1 CAPLUS

CN 4-Piperidinemethanamine, N-(5-cyano-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

. *3.

Absolute stereochemistry.

RN 455266-87-2 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]-N-[5-(phenylethynyl)-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

RN 455266-88-3 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(3-methylphenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & CH_2-NH & N \\ \hline \\ Me & N \end{array}$$

RN 455266-89-4 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(3-chlorophenyl)cyclopropyl]carbonyl]-N-2-pyrimidinyl- (9CI) (CA INDEX NAME)

RN 455266-91-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(3-methoxyphenyl)cyclopropyl]carbonyl]-N=2-pyrimidinyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & CH_2-NH-N \\ \hline \\ MeO & N \end{array}$$

RN 455266-92-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-methylphenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

RN 455266-93-0 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2-fluorophenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (ČA`INDEX NAME)

$$F$$
 O CH_2-NH N Me

RN 455266-94-1 CAPLUS

CN 4-Piperidinemethanamine, N-(5-fluoro-2-pyrimidinyl)-1-[[2-(pentafluorophenyl)cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-96-3 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,3-difluorophenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

RN 455266-97-4 CAPLUS

CN 4-Piperidinemethanamine, N-(5-fluoro-2-pyrimidinyl)-1-[[2-(2-methylphenyl)cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455266-98-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C1 & & & \\
N & & C-O-CH_2
\end{array}$$

RN 455266-99-6 CAPLUS

CN 4-Piperidinemethanamine, 1-[[2-(2,6-difluorophenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
F & O \\
C & N
\end{array}$$

$$\begin{array}{c|c}
CH_2 - NH & N \\
N & Me$$

RN 455267-00-2 CAPLUS

CN 4-Piperidinemethanamine, N-(5-fluoro-2-pyrimidinyl)-1-[[2-(3-methylphenyl)cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 455267-02-4 CAPLUS

CN 4-Piperidinemethanamine, N-(4-methyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455267-03-5 CAPLUS

CN 4-Piperidinemethanamine, N-(5-methyl-2-pyrimidinyl)-1-[[2-(5-methyl-2-thienyl)cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

$$\mathsf{Me} \underbrace{\hspace{1cm} \overset{\mathsf{O}}{\underset{\mathsf{C}}{\bigvee}} \overset{\mathsf{O}}{\underset{\mathsf{C}}{\bigvee}} \mathsf{CH}_2 - \mathsf{NH} \underbrace{\hspace{1cm} \overset{\mathsf{N}}{\underset{\mathsf{N}}{\bigvee}}}_{\mathsf{Me}}$$

RN 455267-04-6 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-3-methanamine, 8-[(2-phenylcyclopropyl)carbonyl]-N-2-pyrimidinyl-, (3-exo)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455290-08-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455290-10-5 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1S,2S)-2-(2-fluorophenyl)cyclopropyl]carbony 1]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455290-13-8 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1S,2S)-2-(2,3-difluorophenyl)cyclopropyl]car bonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stèreochemistry.

RN 455305-07-4 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1S,2S)-2-(2,6-difluorophenyl)cyclopropyl]car bonyl]-N-(5-fluoro-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 455267-18-2P 455267-73-9P 455267-78-4P 455267-93-3P 455267-98-8P 455267-99-9P 455268-00-5P 455268-01-6P 455268-04-9P 455268-05-0P 455268-06-1P 455290-15-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B antagonists)

RN 455267-18-2 CAPLUS

CN 4-Piperidinemethanamine, N-(2-chloro-5-methyl-4-pyrimidinyl)-1-[(2-phenylethyl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 455267-73-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-methyl-4-pyrimidinyl)aminomethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455267-78-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5,6-dichloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & NH-CH_2 \\ \hline \\ N & C1 \\ \hline \\ C1 & C-O-CH_2-Ph \\ \hline \\ O \end{array}$$

RN 455267-93-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

may of significant

HC1

RN 455267-98-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455266-41-8 CMF C19 H25 N5 O2

$$\begin{array}{c|c} O \\ | \\ C-O-CH_2-Ph \\ \\ H_2N-CH_2 \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455267-99-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[6-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455266-32-7 CMF C19 H25 N5 O2

$$\begin{array}{c|c} \mathsf{H_2N-CH_2} & & \mathsf{O} \\ & \mathsf{I} \\ \mathsf{N} & \mathsf{NH-CH_2} & \mathsf{N} \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455268-00-5 CAPLUS

CN 4-Piperidinemethanamine, N-(5-methyl-2-pyrimidinyl)-1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 455268-01-6 CAPLUS

CN 4-Piperidinemethanamine, 4-fluoro-1-[[(1R,2R)-2-(2-fluorophenyl)cyclopropyl]carbonyl]-N-(5-methyl-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 455268-04-9 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]-N-2-pyrimidinyl-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455268-03-8 CMF C20 H24 N4 O

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455268-05-0 CAPLUS

CN 4-Piperidinemethanamine, N-[5-(cyclopropylethynyl)-2-pyrimidinyl]-1[[(1R,2R)-2-phenylcyclopropyl]carbonyl]-, mono(trifluoroacetate) (9CI)
(CA INDEX NAME)

CM 1

CRN 455266-80-5 CMF C25 H28 N4 O

Absolute stereochemistry.

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455268-06-1 CAPLUS

CN 4-Piperidinemethanamine, 1-[[(1R,2R)-2-phenylcyclopropyl]carbonyl]-N-[5-(phenylethynyl)-2-pyrimidinyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455266-87-2 CMF C28 H28 N4 O

Absolute stereochemistry.

CM₂

CRN 76-05-1 CMF C2 H F3 O2

RN 455290-15-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

IT 455267-76-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B
 antagonists)

RN 455267-76-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5-chloro-2,6-bis(methylthio)-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{SMe} & \text{O} \\ \text{N} & \text{C-O-CH}_2\text{-Ph} \\ \text{MeS} & \text{Cl} \end{array}$$

IT 455267-15-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B antagonists)

RN 455267-15-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[[(2,4-dimethoxyphenyl)methyl]amino]; 6- ... : ...

$$Ph-CH_2-O-C$$
 N
 CH_2-NH
 $NH-CH_2$
 OMe
 OMe

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2002:526638 CAPLUS
- DN 137:384804
- ΤI Efficient palladium-catalyzed amination and alkylation of 3-iodo-6-arylpyridazines
- Parrot, Isabelle; Ritter, Guillaume; Wermuth, Camille G.; Hibert, Marcel ΑU
- Laboratoire de Rharmacochimie de la Communication Cellulaire, UMR 7081 CS CNRS/ULP, Universite Louis Pasteur, Faculte de Pharmacie, Illkirch, 67401,
- Synlet (2002), (7), 1123-1127SO CODEN:\SYNLES; issn: 0936-5214
- Georg Thieme Verlag PB
- DT Journal
- LА English
- A simple and efficient amination and alkylation of 3-iodo-6-AB arylpyridazines has been performed using palladium-catalyzed cross coupling reaction. This new route allows access to a wide-ranging series of pharmacol. useful pyridazine derivs.
- IT 221196-76-5P 475633-79-5P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (palladium-catalyzed amination and Suzuki alkylation of iodoarylpyridazines)
- 221196-76-5 CAPLUS RN
- 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-CN (9CI) (CA INDEX NAME)

Ph N N
$$\sim$$
 CH2 \sim Ph NH \sim CH2 \sim CH2 \sim Ph

- ŔŇ 475633-79-5 CAPLUS
- 3-Pyridazinamine, 6-(2-methoxyphenyl)-5-methyl-N-[2-[1-(phenylmethyl)-4]; CN piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 N
 OMe
 Me

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2002:46469 CAPLUS
- DN 137:179359
- TI Structure-based 3D QSAR and design of novel acetylcholine-esterase inhibitors
- AU Sippl, W.; Contreras, J. M.; Rival, Y.; Wermuth, C. G.
- CS Institut fur Pharmazeutische Chemie, Heinrich-Heine-Universitat Dusseldorf, Germany
- Rational Approaches to Drug Design, Proceedings of the European Symposium on Quantitative Structure-Activity Relationships, 13th, Duesseldorf, Germany, Aug. 27-Sept. 1, 2000 (2001), Meeting Date 2000, 56-64. Editor(s): Hoeltje, Hans-Dieter; Sippl, Wolfgang. Publisher: Prous Science, Barcelona, Spain. CODEN: 69CEP6; ISBN: 84-8124-176-8
- DT Conference
- LA English
- The binding of the developed aminopyridazine derivs. to acetylcholinesterase (AChE) was studied. The availability of crystal structures of AChE sep. complexed with structurally diverse inhibitors makes it possible to establish and analyze a model of the binding site. Using GRID interaction fields and mol. mechanics methodol., the inhibitors binding into the model were obtained and assessed and refine the model. Using a combination of receptor-based alignment and three dimensional (3D) QSAR yielded a considerable and predictive model, indicated by the high cross-correlation coeff. and the low SDEP value. The model was successful both as a generator of design ideas and for the prediction of biol. activities. The availability of the crystal structure of the structurally related inhibitor donepezil confirmed the accuracy in predicting the binding conformation of AChE inhibitors.
- IT 221196-76-5 357173-69-4 357173-78-5 357173-79-6 357173-80-9 357173-81-0

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(structure-based 3D QSAR and design of novel acetylcholinesterase
inhibitors)

- RN 221196-76-5 CAPLUS
- CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-(9CI) (CA INDEX NAME)

- RN 357173-69-4 CAPLUS
- CN 4-Piperidineacetamide, 1-(phenylmethyl)-N-(6-phenyl-3-pyridazinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH2} & & & \\ \end{array}$$

RN 357173-78-5 CAPLUS

CN 3-Pyridazinamine, 6-(2-naphthalenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-79-6 CAPLUS

CN Acetamide, N-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

RN 357173-80-9 CAPLUS

CN Ethanone, 1-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

RN 357173-81-0 CAPLUS

CN 3-Pyridazinamine, 6-(1,3-benzodioxol-5-yl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\mathsf{Ph}-\mathsf{CH}_2$$

$$\mathsf{CH}_2-\mathsf{CH}_2-\mathsf{NH}$$

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2001:527783 CAPLUS
- DN 135:257207
- TI Design, Synthesis, and Structure-Activity Relationships of a Series of 3-[2-(1-Benzylpiperidin-4-yl)ethylamino]pyridazine Derivatives as Acetylcholinesterase Inhibitors
- AU Contreras, Jean-Marie; Parrot, Isabelle; Sippl, Wolfgang; Rival, Yveline M.; Wermuth, Camille G.
- CS Laboratoire de Pharmacochimie de la Communication Cellulaire, UMR 7081 du CNRS Universite Louis Pasteur Faculte de Pharmacie, Illkirch, 67401, Fr.
- SO Journal of Medicinal Chemistry (2001), 44(17), 2707-2718 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 135:257207
- Starting from 3-[2-(1-benzylpiperidin-4-yl)ethylamino]-6-phenylpyridazine AB (I), a series of pyridazine analogs, e.g. the [(piperidinylethyl)amino]pyridazines II [R = Ph, R1, R2 = H, Me, Et, Pr, Me2CH; R1 = R2 = H, R = H, Ph, Cl, MeO, 2-MeC6H4, 2-EtC6H4, 2-ClC6H4, 2-naphthyl, 3-(AcNH)C6H4, 3-AcC6H4, 4-FC6H4, 2-thienyl, 3-pyridinyl] and the tricyclic phenylpyridazines III (n = 0, 1, 2, 3) were prepd. and their AChE inhibiting structure-activity relationships were detd. Structural modifications were achieved on four different parts of I and showed that introduction of a lipophilic environment at C-5 of the pyridazine ring was favorable for AChE-inhibitory activity and AChE/BuChE selectivity, that substitution and various replacements of the C-6 Ph group are possible and led to equiv. or slightly more active derivs., and that isosteric replacements or modifications of the benzylpiperidine moiety were detrimental to the activity. III (n = 1) was the most potent inhibitor with an IC50 of 10 nM on elec. eel AChE. Compared to I, this represents a 12-fold increase in potency. Moreover, II (R = Ph, R1 = Me, R2 = H), which showed an IC50 of 21 nM, was 100-times more selective for human AChE (human BuChE/AChE ratio of 24) than the ref. compd. tacrine.
- IT 242802-90-0 242802-91-1 242802-92-2 242802-93-3 242802-94-4 361979-69-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

100

(prepn. and structure-activity relationships of

[(benzylpiperidinyl)ethylamino]pyridazines and their analogs with acetylcholinesterase inhibiting activity)

RN 242802-90-0 CAPLUS

CN 3-Pyridazinamine, 6-(2-methylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 N
 N
 N
 N
 N

●2 HCl

RN 242802-91-1 CAPLUS

CN 3-Pyridazinamine, 6-(2-methoxyphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Ph-CH2} \\ \text{N} \\ \text{CH2-CH2-NH} \\ \text{MeO} \\ \end{array}$$

●2 HCl

RN 242802-92-2 CAPLUS
CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(2,4,6-trimethylphenyl)-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 242802-93-3 CAPLUS
CN 3-Pyridazinamine, 6-(2-naphthalenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & \text{CH}_2\text{--Ph} \\ \hline & NH-\text{CH}_2-\text{CH}_2 \\ \hline \end{array}$$

●2 HC1

RN 242802-94-4 CAPLUS

CN 3-Pyridazinamine, 6-[3,5-bis(trifluoromethyl)phenyl]-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 361979-69-3 CAPLUS

CN 3-Pyridazinamine, 6-chloro-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

IT 242802-89-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(prepn. and structure-activity relationships of [(benzylpiperidinyl)ethylamino]pyridazines and their analogs with acetylcholinesterase inhibiting activity)

RN 242802-89-7 CAPLUS

CN 3-Pyridazinamine, 6-chloro-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2 & & & \\ \end{array}$$

IT 357173-49-0P 357173-50-3P 357173-51-4P 357173-52-5P 357173-53-6P 357173-56-9P 357173-57-0P 357173-59-2P 357173-62-7P 357173-66-1P 357173-69-4P 357173-79-6P 357173-80-9P 357173-81-0P 361979-31-9P 361979-32-0P 361979-33-1P 361979-34-2P 361979-35-3P 361979-41-1P 361979-47-7P 361979-48-8P 361979-49-9P 361979-50-2P 361979-51-3P 361979-52-4P 361979-53-5P 361979-54-6P 361979-55-7P 361979-56-8P 361979-57-9P 361979-58-0P 361979-59-1P 361979-60-4P 361979-61-5P 361979-64-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. and structure-activity relationships of [(benzylpiperidinyl)ethylamino]pyridazines and their analogs with acetylcholinesterase inhibiting activity) RN 357173-49-0 CAPLUS CN 3-Pyridazinamine, 4-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-50-3 CAPLUS

CN 3-Pyridazinamine, 4-(1-methylethyl)-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

Ph N N
$$CH_2-Ph$$
 CH_2-Ph $i-Pr$

RN 357173-51-4 CAPLUS

CN 3-Pyridazinamine, 5-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \hline & \text{NH--CH}_2\text{---CH}_2 \\ \end{array}$$

RN 357173-52-5 CAPLUS

CN 3-Pyridazinamine, 5-ethyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \hline \\ \text{Et} & \text{NH--CH}_2\text{---CH}_2 \\ \end{array}$$

RN 357173-53-6 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-5-propyl- (9CI) (CA INDEX NAME)

RN 357173-56-9 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) INDEX NAME)

$$CH_2-CH_2-NH$$

RN 357173-57-0 CAPLUS

CN 3-Pyridazinamine, 6-methoxy-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-59-2 CAPLUS

CN 3-Pyridazinamine, 6-(2-ethylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-62-7 CAPLUS

CN 3-Pyridazinamine, 6-(2-chlorophenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-66-1 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(3-pyridinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ N & & & \\ \hline & N & \\ N & & \\ NH-CH_2-CH_2 & \\ \hline \end{array}$$

RN 357173-69-4 CAPLUS

CN 4-Piperidineacetamide, 1-(phenylmethyl)-N-(6-phenyl-3-pyridazinyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ & & \\ \text{Ph-CH2} & & \\ \end{array}$$

RN 357173-79-6 CAPLUS

CN Acetamide, N-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

RN 357173-80-9 CAPLUS

CN Ethanone, 1-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

RN 357173-81-0 CAPLUS

CN 3-Pyridazinamine, 6-(1,3-benzodioxol-5-yl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\mathsf{E}^{\mathsf{L}} - \mathsf{C}\mathsf{H}_2$$

RN 361979-31-9 CAPLUS

CN 3-Pyridazinamine, 4-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

Ph N N
$$CH_2-Ph$$

Me

•2 HCl

RN 361979-32-0 CAPLUS

CN 3-Pyridazinamine, 4-(1-methylethyl)-6-phenyl-N-[2-[1-(phenylmethyl)-4-

piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

Ph N N
$$CH_2-Ph$$
 $NH-CH_2-CH_2$

●2 HCl

RN 361979-33-1 CAPLUS

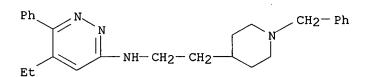
CN 3-Pyridazinamine, 5-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \hline & \text{NH}-\text{CH}_2\text{--CH}_2 \\ \hline \end{array}$$

●2 HCl

RN 361979-34-2 CAPLUS

CN 3-Pyridazinamine, 5-ethyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 361979-35-3 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-5-propyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 361979-41-1 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2 & & & \\ \end{array}$$

●2 HCl

RN 361979-47-7 CAPLUS

CN 3-Pyridazinamine, 6-(2-ethylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 361979-48-8 CAPLUS

CN 3-Pyridazinamine, 6-(2-chlorophenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 361979-49-9 CAPLUS

CN Ethanone, 1-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 N
 CH_2-CH_2-NH
 N
 N
 Ac

●2 HCl

RN 361979-50-2 CAPLUS

CN 3-Pyridazinamine, 6-(1,3-benzodioxol-5-yl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\mathsf{Ph}-\mathsf{CH}_2$$

•2 HCl

RN 361979-51-3 CAPLUS

CN Benzonitrile, 4-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]- (9CI) (CA INDEX NAME)

RN 361979-52-4 CAPLUS

CN Benzonitrile, 4-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 361979-53-5 CAPLUS

CN 3-Pyridazinamine, 6-(4-fluorophenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 361979-54-6 CAPLUS

CN 3-Pyridazinamine, 6-(4-fluorophenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 361979-55-7 CAPLUS

CN 3-Pyridazinamine, 6-[4-(dimethylamino)phenyl]-N-[2-[1-(phenylmethyl)-4-

piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 361979-56-8 CAPLUS

CN 3-Pyridazinamine, 6-[4-(dimethylamino)phenyl]-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 361979-57-9 CAPLUS

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CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(2-thienyl)- (9CI) (CA INDEX NAME)

RN 361979-58-0 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(2-thienyl)-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} S & N & N & CH_2-Ph \\ \hline & NH-CH_2-CH_2 & \end{array}$$

•2 HCl

RN 361979-59-1 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(3-pyridinyl)-, trihydrochloride (9CI) (CA INDEX NAME)

●3 HCl

RN 361979-60-4 CAPLUS

CN Acetamide, N-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

PN 361979-61-5 CAPLUS

CN 3-Pyridazinamine, 6-methoxy-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$CH_2-CH_2-NH$$
 N
 N
 N
 OMe

•2 HCl

RN 361979-64-8 CAPLUS

CN 4-Piperidineacetamide, 1-(phenylmethyl)-N-(6-phenyl-3-pyridazinyl)-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

●2 HC1

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2003 ACS
     2001:435072 CAPLUS
AN
DN
     135:46188
TI
     Substituted pyridazines having cytokine inhibitory activity
IN
     Mcintyre, Charles J.; Liverton, Nigel J.; Claremon, David A.
PA
     Merck + Co., Inc., USA
     PCT Int. Appl., 70 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                                            APPLICATION NO.
     PATENT NO.
                      KIND DATE
                                            WO 2000-US33097 20001207
PΙ
     WO 2001042241
                      A1
                             20010614
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           EP 2000-986274
                           20020918
                                                             20001207
     EP 1240160
                       A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-170319P
                      P
                             19991213
     WO 2000-US33097
                       W
                             20001207
OS
    MARPAT 135:46188
     Pyridazines I [A is halogen, Ph, PhS(:O)m (m = 0-2), or R5R6N; R1 is H,
     alkylamino, or (un) substituted arylamino; R2, R3, R4 are independently
     halogen, hydroxy, F3C, amino, nitro, (C1-C6)alkyl, (C1-C6)alkoxy,
     (C3-C8) cycloalkyl, Ph; R5 and R6 are independently hydrogen, alkoxy-,
     (un) substituted amino-, and (un) substituted phenyl-substituted (or
     unsubstituted) (C1-C6)alkyl or R5R6 = (C4-C10)(un)substituted (mono- or
     bicyclic)heterocycle; Q is CA or N] are prepd. as inhibitors or
     antagonists of the formation and activity of cytokines such as
     interleukin-1.beta. (IL-1.beta.), IL-6, and IL-8 for the treatment of
     cytokine mediated diseases and conditions such as inflammation, arthritis,
     sepsis and septic shock, osteoporosis, bone resorption diseases, and
     Crohn's disease. E.g., the dihydrochloride of I [A = Me2NCH2CH2NH; R1 =
     (S)-PhCH(Me)NH; R2 = 3-F3C; R3 = R4 = H] (II) was prepd. by amidation of
     3-trifluoromethylbenzoyl chloride with N-methoxymethylamine, displacement
     of the amide with 2-(methylthio)-4-pyrimidinylmethyllithium, alkylation of
     the ketone with Me bromoacetate, hydrolysis of the ester with hydrogen
     chloride in dioxane, addn. and cyclization of the acid and ketone moieties
     with hydrazine, oxidn. of the methylthio group to the pyrimidinyl Me
     sulfone with sodium tungstate and hydrogen peroxide, addn. of
     (S)-.alpha.-methylbenzylamine to the pyrimidinyl sulfone with substitution
     to give the pyrimidinamine, oxidn. of the cyclic hydrazone to the
     hydroxypyridazine with DDQ, and chlorination of the hydroxypyridazine with
     phosphorus oxychloride to give I [A = Cl; R1 = (S)-PhCH(Me)NH; R2 = 3-F3C;
     R3 = R4 = H], a key intermediate in the prepn. of the claimed pyridazines.
     E.g., treatment of I [A = Cl; Rl = (S)-PhCH(Me)NH; R2 = 3-F3C; R3 = R4 =
     H] with 2-(dimethylamino)ethylamine and heating at 100.degree. gave II as
     the free base which was converted to the hydrochloride by treatment with
     1N HCl. No biol. data is provided.
```

IT

344464-78-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyridazine derivs. as inhibitors of cytokine formation and activity for the treatment of cytokine-mediated diseases such as arthritis)

RN 344464-78-4 CAPLUS

CN 3-Pyridazinamine, 5-[2-[[(1S)-1-phenylethyl]amino]-4-pyrimidinyl]-N-[1-(phenylmethyl)-4-piperidinyl]-6-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

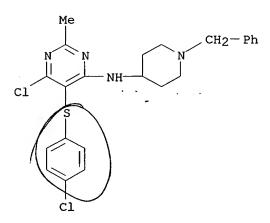
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 10 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2001:321154 CAPLUS
- DN 135:175184
- TI Conformational analysis of tandospirone in aqueous solution lead evolution of potent dopamine D4 receptor ligands
- AU Nishimura, T.; Igarashi, J.; Sunagawa, M.
- CS Sumitomo Pharmaceuticals Research Division, Konohanaku, Osaka, 554-0022, Japan
- SO Bioorganic & Medicinal Chemistry Letters (2001), 11(9), 1141-1144 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- AB The significant contribution of folded conformation (I) of the anxiolytic tandospirone in aq. soln. was verified by dynamic 1H NMR. A structurally rigid mimic of I was designed and synthesized to evaluate the implication of I towards neuroleptic receptor binding. The designed structures provided a new rigid scaffold for dopamine D4 ligands.
- IT 204642-63-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(conformational anal. of tandospirone in aq. soln., lead generation and prepn. of dopamine D4 receptor ligands)

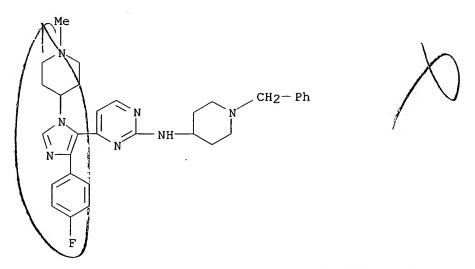
- RN 204642-63-7 CAPLUS
- CN 4-Pyrimidinamine, 6-chloro-5-[(4-chlorophenyl)thio]-2-methyl-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2003 ACS
     2001:278036 CAPLUS
AN
DN
     134:295821
     Imidazole compounds useful as cytokine inhibitors.
ΤI
IN
     Adams, Jerry Leroy; Gallagher, Timothy Francis; Sisko, Joseph; Osifo,
     Irennegbe Kelly; Boehm, Jeffrey Charles
PA
     Smithkline Beecham Corporation, USA
     U.S., 33 pp., Cont.-in-part of U.S. Ser. No. 636,779, fabandoned.
SO
     CODEN: USXXAM
DT
     Patent
     English
LA
FAN.CNT 5
     PATENT NO.
                     KIND DATE
                                         APPLICATION NO.
                                                            DATE
                           -----
PΙ
    US 6218537
                      B1 20010417
                                          US 1998-973594
                                                            19980513
    ZA 9604723 A 19970617
WO 9640143 A1 19961219
                                           ZA 1996-4723
                                          WO 1996-US10039 19960607
        W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG,
             KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG,
             SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
                     A2 19950607
PRAI US 1995-473396
                      B2
                            19960419
     US 1996-636779
                            19960607
     WO 1996-US10039
                      W
os
     CASREACT 134:295821; MARPAT 134:295821
     Novel 1,4,5-trisubstituted imidazole compds. I and their compns. for use
AΒ
     in therapy as cytokine inhibitors are disclosed [wherein R1 = 4-pyridyl,
     pyrimidinyl, quinolyl, isoquinolyl, quinazolin-4-yl, 1-imidazolyl,
     1-benzimidazolyl, all bearing a substituted amino group, plus an optional
     addnl. substituent; R2 = alkyl, N3, heterocyclyl, alk(en/yn)yl, haloalkyl,
     etc.; R4 = (un)substituted Ph, 1- or 2-naphthyl, heteroaryl]. I are
     useful for treating a variety of cytokine-mediated diseases, particularly
     those mediated by CSBP/RK/p38 kinase, and may also be useful as antivirals
     (no data). For example, 2-(methylthio)pyrimidine-4-carboxaldehyde (prepn.
     qiven) was condensed with 4-amino-1-methylpiperidine-2HCl to give the
     imine (98%), which was cyclized with the tosylmethyl isocyanide deriv.
     4-FC6H4CH(Tos)N.tplbond.C (50%) to give imidazole deriv. II [R = SMe].
     This underwent S-oxidn. with K persulfate to give 83% II [R = S(0)Me],
     which was condensed with PhCH2NH2 (82%) to give title compd. II [R = \frac{1}{2}
     NHCH2Ph].
IT
     186314-81-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of imidazole derivs. as cytokine inhibitors)
RN
     186314-81-8 CAPLUS
     2-Pyrimidinamine, 4-[4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-1H-
CN
```

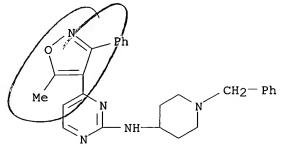
imidazol-5-yl]-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2003 ACS
     2001:137207 CAPLUS
AN
DN
     134:178569
     Preparation of as isoxazolylpyrimidines and related compounds as
ΤI
     inhibitors of c-JUN N-terminal kinases and other protein kinases.
TN
     Green, Jeremy; Bemis, Guy; Grillot, Anne-Laure; Ledeboer, Mark; Salituro,
     Francis; Harrington, Edmund; Gao, Huai; Baker, Christopher; Cao, Jingrong;
     Hale, Michael
     Vertex Pharmaceuticals Incorporated, USA
PA
SO
     PCT Int. Appl., 96 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                     KIND
                           DATE
                                          APPLICATION NO.
                                                            DATE
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                                           -----
                                        WO 2000-US22445 20000811
                           20010222
PΙ
    WO 2001012621
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            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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     EP 1218369
                      A1
                           20020703
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
    NO 2002000713
                      Α
                           20020412
                                           NO 2002-713
                                                            20020212
PRAI US 1999-148795P
                      Ρ
                            19990812
     US 1999-166922P
                      Р
                            19991122
     US 2000-211517P
                      Р
                            20000614
                            20000811
     WO 2000-US22445
                      W
                                                                       Carte Sall
OS .
    MARPAT 134:178569
     Title compds. [I; XYZ = NOCR2, ON:CR2, N:NNR3, OC(R2):CR2, NN(R3)CR2; 以輟=
     H, CONH2, ThR, ThAr2; R = (substituted) aliphatyl; n = 0, 1; T = CO, CO2^{n},
     CONH, SO2, SO2NH, COCH2, CH2; R2 = H, R, CH2OR, CH2OH, CHO, CH2SR,
     CH2SO2R, CH2NH2, CH2CN, (substituted) aryl, arylmethyl, heterocyclyl,
     heterocyclylmethyl, etc.; R3 = H, R, COR, CO2R, SO2R; G = R, Ar1; Ar1 =
     (substituted) (fused) aryl, aralkyl, heterocyclyl; Q = Q1, Q2; A = N, CR3;
     U = CR3, O, S, NR3; Ar2 = (substituted) (fused) aryl, heterocyclyl], were
     prepd. Thus, 4-(5-methyl-3-phenylisoxazole-4-yl)pyrimidin-2-ylamine
     (prepn. given) was refluxed with PhBr, tris(dibenzylideneacetone)dipalladi
     um, BINAP, and NaOCMe3 were refluxed together for 16 h to give 36%
     4-(5-methyl-3-phenylisoxazole-4-yl)pyrimidin-2-ylphenylamine. Several I
     inhibited KNK3 at <0.1 .mu.M.
IT
     326819-56-1
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (prepn. of as isoxazolylpyrimidines and related compds. as inhibitors
        of c-JUN N-terminal kinases and other protein kinases)
RN
     326819-56-1 CAPLUS
     2-Pyrimidinamine, 4-(5-methyl-3-phenyl-4-isoxazolyl)-N-[1-(phenylmethyl)-4-
```

piperidinyl] - (9CI) (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12 ANSWER 13 OF 54 CAPLUS COPYRIGHT 2003 ACS
     2001:12267 CAPLUS
AN
     134:71602
DN
TI
     Preparation and effect of benzimidazolylpyrimidine derivatives as SRC
     kinase inhibitorss
IN
     Goulet, Joung L.; Holmes, Mark A.; Hunt, Julianne A.; Mills, Sander G.;
     Parsons, William H.; Sinclair, Peter J.; Zaller, Dennis M.
PA
     Merck & Co., Inc., USA
     PCT Int. Appl., 173 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LА
     English
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                           APPLICATION NO.
                            _____
                                           -----
                                        WO 2000-US17510 20000626
     WO 2001000207
                     A1 20010104
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
            SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
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     US 6329380
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                                           EP 2000-953637
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     EP 1206260
                       A1
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003503351
                      Т2
                            20030128
                                           JP 2001-505916
                                                            20000626
PRAI US 1999-141630P
                            19990630
                      Ρ
                            20000626
     WO 2000-US17510
                      W
OS
     MARPAT 134:71602
     Title Pyrimidine compds. [I; R1, R2 independently = H, Br, C1, I, F, OH,
AB
     SH, CN, NO2, NH2; RîR2; rused methylenedioxy ring, fused 6-membered arom.
     ring; R3, R5 independently = H, alkyl, aryl; R3R5 = O; R4 = H, alkyl, &s:
     alkoxyl; X1, X2, X3, X4 independently = CH, CBr, COH, CSH, CNO2, N; R7 = "
     H, NH2, alkyl, aryl, alkylamino, arylamino; Y = O, N, CH; Z = CO, SO2,
     bond; m, n independently = 0, 1, 2, 3, 4], or their pharmaceutically
     acceptable salts, hydrates, solvates, crystal forms and individual
     diastereomers, and pharmaceutical compns. including the same, which are
     inhibitors of tyrosine kinase enzymes, and as such are useful in the
     prophylaxis and treatment of protein tyrosine kinase-assocd. disorders,
     such as immune diseases, hyperproliferative disorders and other diseases
     in which inappropriate protein kinase action is believed to play a role,
     such as cancer, angiogenesis, atherosclerosis, graft rejection, rheumatoid
     arthritis and psoriasis. Thus, the title compd. II was prepd. and tested.
IT
     315717-39-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. and effect of benzimidazolylpyrimidine derivs. as SRC kinase
        inhibitors)
RN
     315717-39-6 CAPLUS
     1-Piperidinecarboxylic acid, 4-[[[4-(1H-benzimidazol-1-yl)-2-
CN
```

pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)



THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/079,452 (species - Ex17)

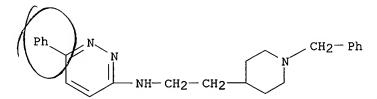
- L12 ANSWER 14 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2000:882953 CAPLUS
- DN 135:40387
- TI Comparative molecular field analysis of aminopyridazine acetylcholinesterase inhibitors
- AU Sippl, Wolfgang; Contreras, Jean-Marie; Rival, Yveline; Wermuth, Camille G.
- CS Institut fur Pharmazeutische Chemie, Heinrich-Heine-Universitat, Dusseldorf, D-40225, Germany
- SO Molecular Modeling and Prediction of Bioactivity, [Proceedings of the European Symposium on Quantitative Structure-Activity Relationships: Molecular Modeling and Prediction of Bioactivity], 12th, Copenhagen, Denmark, Aug. 23-28, 1998 (2000), Meeting Date 1998, 53-58. Editor(s): Gundertofte, Klaus; Jorgensen, Flemming Steen. Publisher: Kluwer Academic/Plenum Publishers, New York, N. Y. CODEN: 69ASO3
- DT Conference
- LA English
- AB A study was conducted in which the combination of ligand—and receptor—based models has been successfully applied to a set of aminopyridazine derivs. With acetylcholinesterase inhibitor activities. Highly predictive and robust models were obtained using a manually and an automated detd. inhibitor—alignment. Besides the good predictivity, the models are also in close agreement with the known three—dimensional structure of the enzyme. The use of crystallog, data in the detn, of the relative orientation of the studied inhibitors as an alignment tool is strongly supported by the results.
- IT 221196-76-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparative mol. field anal. of aminopyridazine acetylcholinesterase inhibitors)

RN 221196-76-5 CAPLUS

CN 3-Fyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 15 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2000:855763 CAPLUS
- DN 134:29423
- TI Preparation of [(quinazolinylpiperidinyl)amino]benzoates and analogs as bactericides
- IN Kung, Pei-Pei; Cook, Phillip Dan; Guinosso, Charles John
- PA Isis Pharmaceuticals, Inc., USA
- SO U.S., 22 pp. CODEN: USXXAM
- DT Patent
- LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	0	APPLICATION NO.	DATE
					-
PI US 6156758 PRAI US 1999-391843	Α	20001205 19990908		US 1999-391843	19990908

OS MARPAT 134:29423

AB RZ(NR4)nZCO2R1 [I; R = (un)substituted 2-quinazolinyl; R1 = OH, (ar)alkoxy, aryloxy, etc.; R4 = H, alkyl, acyl; Z = piperidine- or piperazine-1,4-diyl; Z1 = (un)substituted 1,4-phenylene, -pyridine-2,5- or -5,2-diyl, -pyrazine-2,5-diyl; n = 0 or 1] were prepd. Thus, Me 3-amino-5,6-dichloro-2-pyrazinecarboxylate was condensed with 1-protected-4-aminopiperidine and the deprotected product condensed with 4-amino-2-chloro-6,7-dimethoxyquinazoline to give title compd. II. Data for biol. activity of I were given.

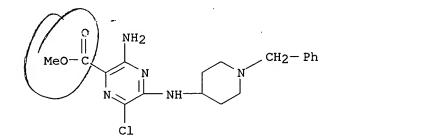
IT 253192-21-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of [(quinazolinylpiperidinyl)amino]benzoates and analogs as bactericides)

RN 253192-21-1 CAPLUS

CN Pyrazinecarboxylic acid, 3-amino-6-chloro-5-[[1-(phenylmethyl)-4-piperidinyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 16 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
     2000:742067 CAPLUS
ΑN
     133:309900
DN
     Preparation of oxopyrimidinealkanoates and analogs as integrin receptor
ΤI
     Zechel, Johann-Christian; Kling, Andreas; Geneste, Herve; Lange, Udo;
IN
     Lauterbach, Arnulf; Graef, Claudia Isabella; Subkowski, Thomas; Sadowski,
     Jens; Hornberger, Wilfried
     BASF Aktiengesellschaft, Germany
PA
SO
     PCT Int. Appl., 301 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     German
FAN.CNT 9
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
    WO 2000061551
                                           WO 2000-EP2746
                                                             20000329
                       A2
                            20001019
PΙ
                      A3
                            20001228
    WO 2000061551
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20001019
                                           DE 1999-19916719 19990413
     DE 19916719
                       A1
     DE 19962998
                       A1
                            20010712
                                           DE 1999-19962998 19991224
     EP 1171435
                       A2
                            20020116
                                           EP 2000-920612
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             IE, SI, LT, LV, FI, RO
                                           BR 2000-9739
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     BR 2000009739
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                            20021203
                                           JP 2000-610827
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    JP 2002541243
                       T2
     BG 105979
                       À
                                           BG 2001-105979
                                                             20011004
                            20020628
                                           NO 2001-4961
                                                             20011012
     NO 2001004961
                            20011107
                       Α.
PRAI DE 1999-19916719 A
                            19990413
     DE 1999-19962998 A
                            19991224
                            20000329
     WO 2000-EP2746
                       W
os
     MARPAT 133:309900
     BGUT [B = a structural element contg. .gtoreq.1 atom capable of forming a
AB
     H-bond under physiol. conditions (sic); G = (un)substituted divalent
     oxopyrimidine group I; T = CO2H or a group hydrolizable to CO2H; U = bond,
     (heteroatom-interrupted) (oxo) alkylene, (hetero) arylene, etc.] were prepd.
     as integrin receptor ligands (no data). Thus, ROCCH(NHCbz)CH2NH2 (R =
     resin) was cyclocondensed with R1CH: CMeCSNHCO2Et (prepn. given) to give a
     resin-bound oxothioxopyrimidine which was treated with BrCN and the
     product condensed with 1-(2-pyridinyl)piperidine-4-methanamine (prepn.
     given) to give, after resin cleavage, title compd. II.
IT
     302340-01-8P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of oxopyrimidinealkanoates and analogs as integrin receptor
        ligands)
RN
     302340-01-8 CAPLUS
     1(2H)-Pyrimidinepropanoic acid, 5-methyl-2-oxo-.alpha.-
CN
     [[(phenylmethoxy)carbonyl]amino]-4-[[[1-[(phenylmethoxy)carbonyl]-4-
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piperidinyl]methyl]amino]-, (.alpha.S)- (9CI) (CA INDEX NAME)

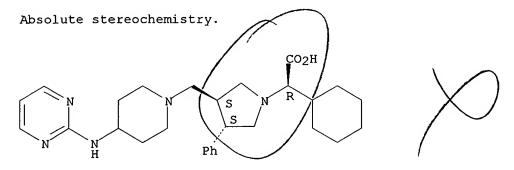
Absolute stereochemistry.

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L12 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2003 ACS
     2000:725459 CAPLUS
AN
DN
     133:296373
ΤI
     Preparation of 3-phenyl-4-(heterocyclylmethyl)pyrrolidine modulators of
     chemokine receptor activity
IN
     Caldwell, Charles; Chapman, Kevin; Hale, Jeffrey; Kim, Dooseop; Lynch,
     Christopher; Maccoss, Malcolm; Mills, Sander G.; Willoughby, Christopher;
     Berk, Scott; Kim, Ronald M.
PA
     Merck and Co., Inc., USA
     PCT Int. Appl., 202 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                     KIND
                           DATE
                                           APPLICATION NO.
                            20001012
                                         WO 2000-US9074
                                                            20000405
PΙ
    WO 2000059498
                     A1
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           US 2000-543019
                                                            20000404
     US 6498161
                       В1
                            20021224
PRAI US 1999-128172P
                            19990406
os
    MARPAT 133:296373
     The title compds. (I) [wherein R1 = CO2H, NO2, tetrazolyl,
ΑB
     hydroxyisoxazole, SO2NH(alkyl)R9, or PO3H2; R9 = H, (cyclo)alkyl, benzyl,
     or (un) substituted phenyl; R2 = (un) substituted piperidinyl,
     tetrahydropyridinyl, piperazinyl, or 1-oxa-8-azaspiro[4.5]decyl; R3 =
     (un) substituted Ph or heterocyclyl; R4 = H or (un) substituted alkyl,
     (alkyl)cycloalkyl, alkenyl, alkynyl, Ph, mlkylphenyl, naphthyl, biphenyl,
     heterocyclyl, cyclohexenyl, etc.; R5 and R6 = independently H or
     (un) substituted alkyl; or R4 and R5 may be joined together to form an
     (un) substituted C3-8 cycloalkyl ring; n = 1-3] were prepd. as modulators
     of chemokine receptors, esp. the chemokine receptors CCR-5 and/or CCR-3.
     For example, 2-(R)-((3-(R)-formy1)-4-(S)-3-fluorophenylpyrrolidinyl-1-yl)-
     3-cyclobutanepropionic acid benzyl ester (prepn. given) was treated with
     Pd/C and dissolved in ClCH2CH2Cl. 4-[N-(pyrimid-2-yl)-N-(prop-1-
     yl)amino]piperidine.bul.HCl (4-step prepn. given), NaBH(OAc)3, and TEA
     were added, followed by di-tert-butyldicarbonate, to give II. I showed
     binding activity to the CCR-5 or the CCR-3 receptor, generally with IC50
     values of < 1 .mu.M. The present invention is directed to compds. which
     inhibit the entry of human immunodeficiency virus (HIV) into target cells
     and are of value in the prevention and treatment of HIV infection and the
     resulting AIDS syndrome (no data). The invention is further directed to
     compds. which are useful in the prevention or treatment of certain
     inflammatory and immunoregulatory disorders, including asthma, allergic
     rhinitis, dermatitis, conjunctivitis, rheumatoid arthritis, and
     atherosclerosis (no data).
ΙT
     301223-22-3P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of 3-phenyl-4-(heterocyclylmethyl)pyrrolidine chemokine
```

receptor modulators by reaction of 3-phenyl-4-formylpyrrolidines with meterocycles)

RN 301223-22-3 CAPLUS

CN 1-Pyrrolidineacetic acid, .alpha.-cyclohexyl-3-phenyl-4-[[4-(2-pyrimidinylamino)-1-piperidinyl]methyl]-, (.alpha.R,3S,4S)- (9CI) (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 2000:343284 CAPLUS

DN 133:144467

TI Structure-based 3D-QSAR-merging the accuracy of structure-based alignments with the computational efficiency of ligand-based methods

AU Sippl, W.; Holtje, H.-D.

CS Institute for Pharmaceutical Chemistry, Heinrich-Heine-University at Dusseldorf, Dusseldorf, D-40225, Germany

SO THEOCHEM (2000), 503(1-2), 31-50 CODEN: THEODJ; ISSN: 0166-1280

PB Elsevier Science B.V.

DT Journal

LA English

AB One of the major challenges in computational approaches to drug design is the accurate prediction of binding affinity of biomols. The strategies that can be applied for this purpose fall into two major categories-the indirect ligand-based and the direct receptor-based approach. In this contribution, we used a combination of both approaches in order to improve the prediction accuracy for drug mols. The combined approach was tested on two sets of ligands for which the three-dimensional structure of the target receptor was known-estrogen receptor ligands and acetylcholinesterase inhibitors. The binding modes of the ligands under study were detd. using an automated docking program (AutoDock) and were compared with available X-ray structures of corresponding protein-ligand complexes. The ligand alignments obtained from the docking simulations were subsequently taken as the basis for a comparative field anal. applying the grid/golpe program. Using the interaction field derived with a water probe and applying the smart region definition variable selection, highly predictive models were obtained. The comparison of our models with interaction energy-based models and with traditional CoMFA models obtained using a ligand-based alignment indicates that the combination of structure-based and 3D-QSAR methods is able to improve the prediction ability of the underlying model.

IT 221196-76-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(structure-based 3D-QSAR-merging the accuracy of structure-based alignments with the computational efficiency of ligand-based methods)

RN 221196-76-5 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-(9CI) (CA INDEX NAME)

RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12
    ANSWER 19 OF 54 CAPEUS COPYRIGHT 2003 ACS
AN
     2000:241135 CAPLUS
DN
     132:279106
TI
     Non-peptide GnRH agents, methods and intermediates for their preparation
ΙN
     Anderson, Mark Brian; Vazir, Haresh N.; Luthin, David Robert; Paderes,
     Genevieve Deguzman; Pathak, Ved P.; Christie, Lance Christopher; Hong,
     Yufeng; Tompkins, Eileen Valenzuela; Li, Haitao; Faust, James
PA
     Agouron Pharmaceuticals, Inc., USA; et al.
     PCT Int. Appl., 444 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LА
     English
FAN.CNT 1
     PATENT NO.
                     KIND
                            DATE
                                           APPLICATION NO.
                                                            DATE
                            _____
                                           WO 2000020358
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PI
     WO '2000020358
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             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           CA 1999-2341346 19990820
                      AA
                            20000413
     BR 9913374
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                                           EE 2001-102
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                            20020630
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                      T2
                            20021022
                                           JP 2000-574479
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                                           NO 2001-309
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    NO 2001000309
                      A
     LV 12732
                      В
                            20020320
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     BG 105362
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                                                            20010319
                                           LT 2001-24
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                      В.
                            20020425
PRAI US 1998-97520P
                      Ρ
                            19980820
                            19990820
     WO 1999-US18790
                      W
os
     MARPAT 132:279106
AΒ
     Non-peptide GnRH agents capable of inhibiting the effect of
     gonadotropin-releasing hormone are described. The compds. and their
     pharmaceutically acceptable salts, multimers, prodrugs, and active
     metabolites are suitable for treating mammalian reproductive disorders and
     steroid hormone-dependent tumors as well as for regulating fertility,
     where suppression of gonadotropin release is indicated. The compds.
     include those of formula I [X = C:O, C:S, S:O, or SO2; Het = 5-membered
     NOS-heterocycle; R1, R2 = H, alkyl; R3-R7 = H, halo, (un) substituted
     alkyl, aryl, heteroaryl, CH2OR, OR, CO2R; R = alkyl, aryl, etc.; adjacent
     rings positions such as R6R7 may form (un)substituted 5- or 6-membered
     ring with up to 4 heteroatoms; R8 = lipophilic moiety such as alkyl, aryl,
     CH2OR, OR, etc.; R9 = H, (un) substituted alkyl]. Methods and
     intermediates for synthesizing the compds. are also described.
     instance, 4,4,7-trimethylchroman (prepn. given) was alkylated in the 6-
     and 8-positions using Et 5-(chloromethyl)-2-furoate (46% total yield), and
     the resulting esters were hydrolyzed to a mixt. of acids. This unsepd.
     mixt. was treated with SOC12 and amidated with 2,4,6-trimethoxyphenylamine-
```

HCl to give the invention compd. II and its chroman-6-position isomer, which were sepd. by HPLC. Several compds. exhibited high affinity (<100 nM) at human GnRH receptors. The compds. antagonized GnRH-stimulated inositol phosphate accumulation in cells with recombinant human GnRH receptors, and an example compd. reduced plasma LH levels in castrated male rats. Various biol. data for several hundred compds. are given.

IT 263847-60-5P 263849-98-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of non-peptide GnRH agents for regulating gonadotropin secretion)

263847-60-5 CAPLUS

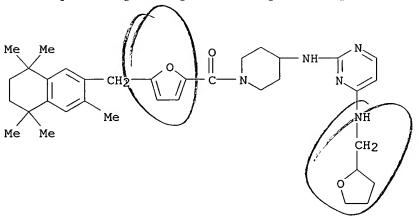
RN

CN

4-Piperidinemethanamine, N-[4-[[(tetrahydro-2-furanyl)methyl]amino]-2-pyrimidinyl]-1-[[5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methyl]-2-furanyl]carbonyl]- (9CI) (CA INDEX NAME)

RN 263849-98-5 CAPLUS

CN 4-Piperidinamine, N-[4-[[(tetrahydro-2-furanyl)methyl]amino]-2-pyrimidinyl]-1-[[5-[(5,6,7,8-tetrahydro-3,5,5,8,8-pentamethyl-2-naphthalenyl)methÿl]-2-furanyl]carbonyl]- (9CI) (CA INDEX NAME)



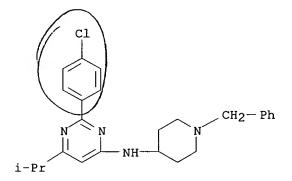
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L12 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2003 ACS
AN
     2000:115763 CAPLUS
DN
     132:151833
ΤI
     Preparation of 4-amino-2-arylpyrimidines as modulators of cyclic guanosine
     monophosphate production.
IN
     Schindler, Ursula; Schoenafinger, Karl; Strobel, Hartmut
     Hoechst Marion Roussel Deutschland G.m.b.H., Germany
PA
     Ger. Offen., 22 pp.
SO
     CODEN: GWXXBX
DΤ
     Patent
LΑ
     German
FAN.CNT 1
                     KIND DATE
     PATENT NO.
                                        APPLICATION NO. DATE
     ______
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                           _____
                                          _____
                                          DE 1998-19836697 19980813
PΙ
     DE 19836697
                      A1
                           20000217
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A1
     CA 2340405
                           20000224
                                          CA 1999-2340405 19990804
     WO 2000009496
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                           20000224
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        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
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            IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
            MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
            TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          AU 1999-57307
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                      A
                           20010508
                                          BR 1999-13003
                                                           19990804
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                      A1
                           20010704
                                          EP 1999-944330
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                      В1
                           20030514
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                           20020723
                                           JP 2000-564948
                                                           19990804
     JP 2002522536
                      T2
PRAI DE 1998-19836697 A
                           19980813
    WO 1999+EP5636 .W
                           19990804
OS
    MARPAT 132:151833
    Title compds. [I; R1 = (substituted) alkyl, cycloalkyl, 5-7 membered
AΒ
    heterocyclyl; R2 = H, (substituted) alkyl, cycloalkyl, 5-7 membered
     heterocyclyl; R1R2N = (substituted) 5-7 membered heterocyclyl; R3 = aryl;
     R4 = alkyl, CF3, aryl], were prepd. Thus, 4-chloro-2(4-chlorophenyl)-6-
     isopropylpyrimidine (prepn. given) and 4-amino-2,2,6,6,-
     tetramethylpiperidine were stirred at 150.degree. for 2 h to give
     2-(4-chlorophenyl)-6-isopropyl-4-[(2,2,6,6-tetramethylpiperidin-4-
     yl)amino]pyrimidine dihydrochloride. Tested I at 50 .mu.M stimulated
     guanylate cyclase by >4 to 28-fold.
ΙT
     257948-58-6P 257949-25-0P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of 4-amino-2-arylpyrimidines as modulators of cyclic guanosine
       monophosphate prodn.)
RN
     257948-58-6 CAPLUS
CN
     4-Pyrimidinamine, 2-(4-chlorophenyl)-N-[1-(phenylmethyl)-4-piperidinyl]-6-
```

(trifluoromethyl)-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 257949-25-0 CAPLUS

CN 4-Pyrimidinamine, 2-(4-chlorophenyl)-6-(1-methylethyl)-N-[1-(phenylmethyl)-4-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HC1

```
L12 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2003 ACS
     1999:811218 CAPLUS
AN
DN
     132:49974
     Preparation of heterocyclic compounds as hypoglycemic agents
TТ
IN
     Suzuki, Mikio; Ohdoi, Keisuke; Kato, Katsuhiro; Matsumoto, Hiromitsu;
     Toyama, Koji; Kitahara, Masaki; Yotsumoto, Takashi
PΑ
     Nissan Chemical Industries, Ltd., Japan
SO
     PCT Int. Appl., 227 pp.
     CODEN: PIXXD2
DT
     Patent
LА
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                            -----
PΙ
     WO 9965881
                      A1
                            19991223
                                          WO 1999-JP3214
                                                            19990616
            AU, CA, CN, CZ, FI, HU, IL, KR, LT, MX, NO, NZ, RO, RU, SI, SK,
             UA, US, ZA
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                       A2
     JP 2001031652
                            20010206
                                           JP 1999-172366
                                                            19990618
PRAI JP 1998-172435
                       Α
                            19980619
     JP 1999-140693
                       Α
                            19990520
OS
     MARPAT 132:49974
     The title compds. [I; A = CH[(CH2)mR1](CH2)nR2, II, III (wherein m, n, n1,
ΑB
     n2 = 0-3; R1 = H, halo, NO2, etc.; R2 = H, halo, NO2, etc.; R3, R31 = H
     alkyl; R4 = H, alkyl, acyl, etc.); D = a bond, CH2, O, etc.; X1-X5 = N,
     CR5 (R5 = H, halo, etc.)] having a hypoglycemic effect, and therefore
     useful for preventing and treating diabetes and diabetic complications,
     were prepd. and formulated. Thus, reacting 2,6-dichloro-4-(2-
     phenoxyethoxy)pyrimidine (prepn. given) with Me 3(R)-amino-4-(tert-
     butoxycarbonylamino)butyrate afforded 86% (R)-IV which showed 53.4%
     carnitine-palmitoyl transferase (CPT) inhibition at 30 .mu.M.
IT
     252721-20-3P 252721-21-4P 252721-22-5P
     252721-23-6P 252721-24-7P
```

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrimidinyl compds. as hypoglycemic agents)

252721-20-3 CAPLUS RN

4-Piperidineacetic acid, 4-[(2,6-dichloro-4-pyrimidinyl)amino]-1-CN [(phenylmethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

252721-21-4 CAPLUS RN

4-Piperidineacetic acid, 4-[(4,6-dichloro-2-pyrimidinyl)amino]-1-CN [(phenylmethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 252721-22-5 CAPLUS

CN 4-Piperidineacetic acid, 4-[[6-chloro-2-(2-phenoxyethoxy)-4-pyrimidinyl]amino]-1-[(phenylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

RN 252721-23-6 CAPLUS

CN 4-Piperidineacetic acid, 4-[[4-chloro-6-(2-phenoxyethoxy)-2-pyrimidinyl]amino]-1-[(phenylmethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 252721-24-7 CAPLUS

CN 4-Piperidineacetic acid, 4-[[4-chloro-6-(2-phenoxyethoxy)-2-pyrimidinyl]amino]-1-[(phenylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

10/079,452 (species - Ex17)

L12 ANSWER 23 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1999:653031 CAPLUS

DN 132:64231

TI Structure-activity relationships of novel 2-substituted quinazoline antibacterial agents

AU Kung, Pei-Pei; Casper, Martin D.; Cook, Kimberley L.; Wilson-Lingardo, Laura; Risen, Lisa M.; Vickers, Timothy A.; Ranken, Ray; Blyn, Lawrence B.; Wyatt, Jacqueline R.; Cook, P. Dan; Ecker, David J.

CS Ibis Therapeutics a Division of Isis Pharmaceuticals and Medicinal Chemistry, Isis Pharmaceuticals, Carlsbad, CA, 92008, USA

SO Journal of Medicinal Chemistry (1999), 42(22), 4705-4713 CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

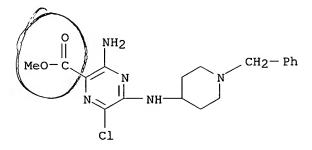
High-throughput screening of inhouse compd. libraries led to the discovery AB of a novel antibacterial agent, pyrazinyl quinazoline compd. I (MIC: 12-25 .mu.M against S. pyogenes). In an effort to improve the activity of this active compd., a series of 2-substituted quinazolines, e.g., II (X, Y = N,CH, Z = Cl, H, NO2, W = NH2, H, R = Me, CMe3, H) was synthesized and evaluated in several antibacterial assays. One such compd., I (X = Y =CH, Z = W = R = H) (III) displayed improved broad-spectrum antibacterial activity against a variety of bacterial strains. This mol. also inhibited transcription/translation of bacterial RNA, suggesting a mechanism for its antibiotic effects. Structure-activity relationship studies of III led to the synthesis of another 24 compds. Although some of these mols. were found to be active in bacterial growth assays, none were as potent as III. Compd. III was tested for its ability to cure a systemic K. pneumonia infection in the mouse and displayed moderate effects compared with a control antibiotic, gentamycin.

IT 253192-21-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (prepn., antibacterial activity, and structure-activity relationship of quinazolines)

RN 253192-21-1 CAPLUS

CN Pyrazinecarboxylic acid, 3-amino-6-chloro-5-[[1-(phenylmethyl)-4-piperidinyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1999:499944 CAPLUS
- DN 131:280998
- TI N-Substituted (2,3-Dihydro-1,4-benzodioxin-2-yl)methylamine Derivatives as D2 Antagonists/5-HTlA Partial Agonists with Potential as Atypical Antipsychotic Agents
- AU Birch, Alan M.; Bradley, Paul A.; Gill, Julie C.; Kerrigan, Frank; Needham, Pat L.
- CS Research and Development Department, Knoll Pharmaceuticals, Nottingham, NG1 1GF, UK
- SO Journal of Medicinal Chemistry (1999), 42(17), 3342-3355 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 131:280998
- As series of N-substituted 1-(2,3-dihydro-1,4-benzodioxin-2-yl)methylamine derivs. with D2 antagonist/5-HTlA partial agonist activity has been prepd. as potential atypical antipsychotic agents. Optimization of in vitro receptor binding activity and in vivo activity in rodent models of psychosis has led to a compd. (I) which showed good affinities for human D2, D3, and 5-HTlA receptors but significantly less affinity for human alpha.1 adrenoceptors and rat H1 and muscarinic receptors. In rodents, I showed functional D2-like antagonism and 5-HTlA partial agonism. After oral dosing, I showed good activity in rodent antipsychotic tests and very little potential to cause extrapyramidal side effects (EPS), as measured by its ability to induce catalepsy in rats only at very high doses. In the light of this promising profile of activity, I has been selected for clin. investigation as a novel antipsychotic agent with a predicted low propensity to cause EPS.

IT 246265-92-9P 246265-93-0P

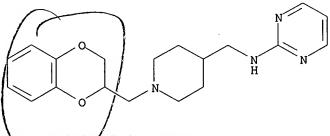
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(N-substituted (dihydrobenzodioxinyl) methylamine derivs. as D2 antagonists/5-HIIA partial agonists with potential as atypical antipsychotic agents in relation to affinity for .alpha.1 adrenoceptors)

RN 246265-92-9 CAPLUS

CN 2-Pyrimidinamine, N-[[1-[(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]-4-piperidinyl]methyl]-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



RN 246265-93-0 CAPLUS

CN 2=Pyrimidinamine, N-[[1-[(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]-4-piperidinyl]methyl]-, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

IT 246266-08-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(N-substituted (dihydrobenzodioxinyl)methylamine derivs. as D2 antagonists/5-HT1A partial agonists with potential as atypical antipsychotic agents in relation to affinity for .alpha.1 adrenoceptors)

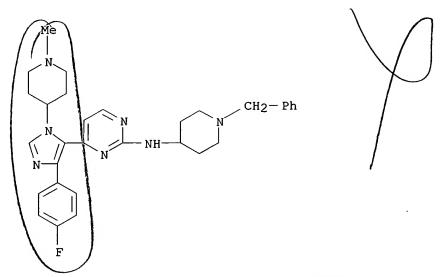
RN 246266-08-0 CAPLUS

CN 2-Pyrimidinamine, N-[[1-[(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)

$$CH_2-NH$$

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L12 ANSWER 26 OF 54 CAPLUS COFYRIGHT 2003 ACS
     1999:262172 CAPLUS
AN
DN
     130:306613
ΤI
     Cytokine production blockers for the management of uterine contractions
IN
     Alvi, Samir Ahmed
PA
     Imperial College Innovations Ltd., UK
SO
     PCT Int. Appl., 53 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
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     WO 9918942
                                       WO 1998-GB3015 19981008
PΙ
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             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
         TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                             19990422
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                                                              19981008
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PRAI US 1997-61614P
                        Ρ
                             19971010
     WO 1998-GB3015
                        W
                             19981008
OS
     MARPAT 130:306613
     The present invention is to the novel use of a cytokine inhibitor for the
AB
     prophylactic treatment, or management of excessive, undesired or
     inappropriate uterine activity, such as contractions, in a mammal in need
     thereof. An example of a cytokine-prodn. blocker is SKF 86002
     [6-(4-fluorophenyl)-2,3-z-hydro-5-(4-pyridinyl)imidazo[2,1-b]thiazole], a
     CSBP/p38 protein kinase RK inhibitor.
IT
     186314-81-8
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (cytokine prodn. blockers for the management of uterine contractions)
RN
     186314-81-8 CAPLUS
CN
     2-Pyrimidinamine, 4-[4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-1H-
     imidazol-5-yl]-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)
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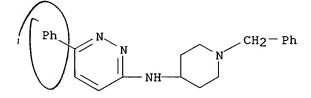
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1999:84847 . CAPLUS
- DN 130:223228
- TI Aminopyridazines as acetylcholinesterase inhibitors
- AU Contreras, Jean-Marie; Rival, Yveline M.; Chayer, Said; Bourguignon, Jean-Jacques; Wermuth, Camille G.
- CS Laboratoire de Chimie Organique, Faculte de Pharmacie, Universite Louis Pasteur, Illkirch, 67401, Fr.
- SO Journal of Medicinal Chemistry (1999), 42(4), 730-741 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 130:223228
- Following the discovery of the weak, competitive and reversible AB acetylcholinesterase (AChE)-inhibiting activity of minaprine I (R1 = Me, R2 = H, X = O) (IC50 = 85 .mu.M ón homogenized rat striatum AChE), a series of 3-amino-6-phenylpyridazines I [R1 = H, Me, CH2OH, etc., R2 = H, 4-Cl, 3,4-(OCH2O), X = O, CH2] and II (R = morpholino, piperidino, N(Me) CH2Ph, etc., n = 0-5) was synthesized and tested for inhibition of AChE. A classical structure-activity relationship exploration suggested that, in comparison to minaprine, the crit. elements for high AChE inhibition are as follows: (i) presence of a central pyridazine ring, (ii) necessity of a lipophilic cationic head, (iii) change from a 2- to a 4-5-carbon units distance between the pyridazine ring and the cationic head. Among all the derivs. investigated, 3-[2-(1-benzylpiperidin-4yl)ethylamino]-6-phenylpyridazine, which shows an IC50 of 0.12 .mu.M on purified AChE (elec. eel), was found to be one of the most potent anti-AChE inhibitors, representing a 5000-fold increase in potency compared to minaprine.
- IT 221196-19-6P 221196-20-9P 221196-21-0P 221196-74-3P 221196-75-4P 221196-76-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn., acetylcholinesterase inhibitory activity, and structure activity relationship of aminopyridazines prepd. from oxo- and chloropyridazines and alkylamino compds.)

- RN 221196-19-6 CAPLUS
- CN 3-Pyridazinamine, 6-phenyl-N-[1-(phenylmethyl)-4-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 221196-20-9 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[[1-(phenylmethyl)-4-piperidinyl]methyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 221196-21-0 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 221196-74-3 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 221196-75-4 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[[1-(phenylmethyl)-4-piperidinyl]methyl]-(9CI) (CA INDEX NAME)

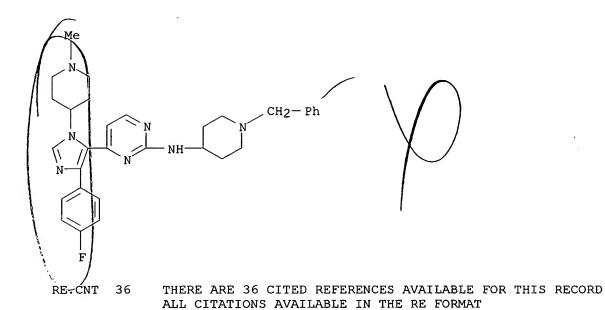
RN 221196-76-5 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-(9CI) (CA INDEX NAME)

RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 28 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
     1998:226813 CAPLUS
AN
DN
     128:282837
TI
     Preparation of imidazoles as cytokine inhibitors
IN
     Adams, Jerry Leroy; Gallagher, Timothy Francis; Sisko, Joseph; Peng, Zhi
     Qiang; Osifo, Irennegbe Kelly; Boehm, Jeffrey Charles
PA
     Smithkline Beecham Corp., USA
     U.S., 33 pp., Cont.-in-part of U.S. 5,658,903.
SO
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 5
     PATENT NO.
                     KIND
                            DATE
                                           APPLICATION NO.
                            _____
                                           ______
PΙ
     US 5739143
                      Α
                            19980414
                                           US 1996-764003
                                                            19961211
     US 5658903
                      Α
                            19970819
                                           US 1996-659102
                                                            19960603
     ZA 9604723
                      Α
                            19970617
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                      Α
     ZA 9711092
                            19990722
                                           ZA 1997-11092
                                                            19971210
                            19980618
     WO 9825619
                      A1
                                           WO 1997-US23157 19971211
            AL, AU, BA, BB, BG, BR, CA, CN, CZ, EE, GE, HU, ID, IL, IS, JP,
             KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG,
             SI, SK, SL, TR, TT, UA, US, US, UZ, VN, YU, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     AU 9857033
                       A1
                            19980703
                                           AU 1998-57033
                                                            19971211
                            19991208
                                           EP 1997-953241
                                                            19971211
                       A1
            BE, CH, DE, ES, FR, GB, IT, LI, NL
     JP 2001506239
                       T2
                            20010515
                                           JP 1998-527045
                                                            19971211
     US 5869660
                       Ά
                            19990209
                                           US 1998-12946
                                                            19980123
     US 6369068
                       В1
                            20020409
                                           US 1999-319859
                                                            19990611
PRAI US 1995-473396
                            19950607
                      B2
     US 1996-636779
                      B2
                            19960419
                                                         1.4
    US 1996-659102
                      A2
                            19960603
    US 1996-32766P
                       P
                            19961211
     US 1996-764003
                      Α
                            19961211
     WO 1997-US23157
                       W
                            19971211
os
     MARPAT 128:282837
     The title compds. [I; R1 = 4-pyridyl, pyrimidinyl, quinolinyl, etc.; R2 =
AΒ
     heterocyclyl, C2-10 alkenyl, C3-7 cycloalkyl, etc.; R4 = (un)substituted
     Ph, 1-naphthyl, 2-naphthyl, heteroaryl], useful in treatment, e.g.,
     inflammation and osteoporosis as cytokine inhibitors, were prepd.
     reaction of 4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-5-(2-
     methylsulfinyl-4-pyrimidinyl)imidazole (prepn. described) with PhCH2NH2
     afforded 82% I [R1 = 2-benzylamino-4-pyrimidinyl; R2 =
     1-methyl-4-piperinyl; R4 = 4-fluorophenyl] which showed IC50 of < 50 .mu.M
     in cytokine specific binding protein assay.
IT
     186314-81-8P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
        (prepn. of imidazoles as cytokine inhibitors)
RN
     186314-81-8 CAPLUS
     2-Pyrimidinamine, 4-[4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-1H-
CN
```

imidazol-5-yl]-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



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L12 ANSWER 29 OF 54 CAPLUS COPYRIGHT 2003 ACS
```

AN 1998:219794 CAPLUS

DN 128:230389

TI Preparation of pyrimidine derivatives as psychotropic drugs

19970317

IN Igarashi, Jun-Etsu; Katsumi, Hiroyuki; Nishimura, Tamiki

PA Sumitomo Pharmaceuticals Co., Ltd., Japan; Igarashi, Jun-Etsu; Katsumi, Hiroyuki; Nishimura, Tamiki

SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
ΡI	WO 9814430	A1 19980409	WO 1997-JP3476	19970929
	W: CA, US			
	RW: AT, BE,	CH, DE, DK, ES, FI	, FR, GB, GR, IE, IT,	, LU, MC, NL, PT, SE
	JP 10109937	A2 19980428	JP 1996-281788	19961002
	JP 10259181	A2 19980929	JP 1997-84537	19970317
PRAI	JP 1996-281788	19961002		

JP 1997-84537 OS MARPAT 128:230389

The title compds. [I; W = optionally substituted alkyl, cycloalkyl, or aryl, etc.; X = halo, (un) substituted alkyl, cycloalkyl, or aryl, etc.; Y = O, S; A = (un) substituted amino or lower alkyl, etc.; G = N, or combine with A to form a ring; Z = (un) substituted N-contg. ring, etc.] are prepd. I are psychotropic drugs having a potent affinity for the D4 receptor but no affinity for the .alpha.1 receptor and being useful as remedies for, e.g., mental symptoms of schizophrenia, periodic psychosis, Parkinson's disease or drug abuse or those accompanying senile dementia or Alzheimer's disease. Thus, 4,6-dichloro-2-methylamino-5-phenylthiopyrimidine (prepn. given) was reacted with 1-benzyl-4-methylamino-piperidine in the presence of K2CO3 to give the title compd. (II). II showed Ki of 1.9 and 209 nM for human D4 and D2 binding resp.

IT 204642-63-7P 204642-64-8P 204642-66-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrimidine derivs. as psychotropic drugs)

RN 204642-63-7 CAPLUS

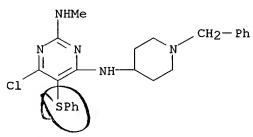
CN 4-Pyrimidinamine, 6-chloro-5-[(4-chlorophenyl)thio]-2-methyl-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 204642-64-8 CAPLUS

CN 2,4-Pyrimidinediamine, 6-chloro-N2-methyl-N4-[[1-(phenylmethyl)-4piperidinyl]methyl]-5-(phenylthio)- (9CI) (CA INDEX NAME)

RN 204642-66-0 CAPLUS

2,4-Pyrimidinediamine, 6-chloro-N2-methyl-N4-[1-(phenylmethyl)-4-CN piperidinyl]-5-(phenyithic)- (9CI) (CA INDEX NAME)



RE.CNT

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 31 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1997:650347 CAPLUS
- DN 127:314828
- TI 1,4,5-Substituted imidazole compounds for treatment of CNS injuries to the brain
- IN Feuerstein, Giora Z.
- PA Smithkline Beecham Corporation, USA; Feuerstein, Giora Z.
- SO PCT Int. Appl., 40 pp. CODEN: PIXXD2
- DT Patent
- LA English

FAN.CNT 1

I'MV.		TENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	WO	9735856 W: JP, US	A1	19971002	WO 1997-US5820 19970324
	E.D	•	-	, DK, ES, F	I, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 1997-917899 19970324
	E.F	R: AT, BE,		, DK, ES, FI	R, GB, GR, IT, LI, LU, NL, SE, MC, PT,
		2000507558	Т2	20000620	JP 1997-534693 19970324
		6096739	A	20000801	US 1998-142877 19980918
	US	6387898	B1	20020514	US 2000-627940 20000728
PRAI	US	1996-14137P	P	19960325	
	WO	1997-US5820	W	19970324	
	US	1998-142877	A3	19980918	

OS MARPAT 127:314828

AB 1,4,5-Substituted imidazole compds. and compns. are used for the treatment of CNS injuries to the brain. The preferred method of inhibition is the the inhibition of the CSBP/p38/RK kinase pathway. Compds. of the invention were active (IC50<50 .mu.M) in a cytokine specific binding protein (CSBP) assay.

IT 186314-81-8

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); EIOL (Biological study); PROC (Process); USES (Uses)

RN 186314-81-8 CAPLUS

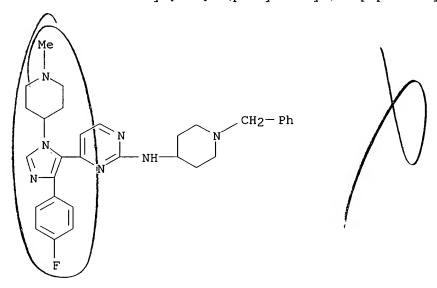
CN 2-Pyrimidinamine, 4-[4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-1Himidazol-5-yl]-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

```
ANSWER 33 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
AN
     1997:119170 CAPLUS
     126:144274
DN
     Imidazole compounds useful as cytokine inhibitors.
ΤI
     Adams, Jerry Leroy; Gallagher, Timothy Francis; Sisko, Joseph; Peng,
IN
     Zhi-Qiang; Osifo, Irennegbee Kelly; Boehm, Jeffrey Charles
PA
     Smithkline Beecham Corporation, USA; Adams, Jerry Leroy; Gallagher,
     Timothy Francis; Sisko, Joseph; Peng, Zhi-Qiang; Osifo, Irennegbee Kelly;
     Boehm, Jeffrey Charles
SO
     PCT Int. Appl., 96 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 5
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                            DATE
     ______
                                           _____
     WO 9640143
                                           WO 1996-US10039 19960607
                            19961219
PΙ
                      A1
         W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG
             KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG,
             SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ,
                                                                             TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
                            20010808
                                           IL 1996-118544
                                                            19960603
     IL 118544
                       A1
                                           ZA 1996-4723
                                                            19960606
     ZA 9604723
                            19970617
                       Α
     TW 442481
                            20010623
                                           TW 1996-85106749 19960606
                       В
                            19961219
                                           CA 1996-2223533
                                                            19960607
     CA 2223533
                       AA
                            19961230
                                           AU 1996-62726
                                                             19960607
     AU 9662726
                       A1
    AU 699646
                       B2
                            19981210
     EP 831830
                       A1
                            19980401
                                           EP 1996-921517
                                                             19960607
     EP 831830
                       В1
                            20030305
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         R:
             IE, SI, FI
                            19980902
                                           CN 1996-195882
                                                             19960607
     CN 1192147
                       Α
     BR 9608591
                                           BR 1996-8591
                                                            19960607
                            19990105
                      Α
                            19991109 🗽
                                           JP 1996-502174
    · JF 11513017 '
                                                            19960607
                       T2
                                           AT 1996-921517
                       E
                            20030315
                                                             19960607
     AT 233561
     NO 9705716
                       Α
                            19980204
                                           NO 1997-5716
                                                             19971205
                                           US 1998-973594
                                                             19980513
     US 6218537
                       В1
                            20010417
PRAI US 1995-473396
                       Α
                            19950607
     US 1996-636779
                            19960419
                       Α
     WO 1996-US10039
                            19960607
OS
     MARPAT 126:144274
AB
     Novel 1,4,5-trisubstituted imidazole compds. I and their compns. for use
     in therapy as cytokine inhibitors are disclosed [wherein R1 = 4-pyridyl,
     pyrimidinyl, quinolyl, isoquinolyl, quinazolin-4-yl, 1-imidazolyl,
     1-benzimidazolyl, all bearing a substituted amino group, plus an optional
     addnl. substituent; R2 = alkyl, N3, heterocyclyl, alk(en/yn)yl, haloalkyl,
     etc.; R4 = (un)substituted Ph, 1- or 2-naphthyl, heteroaryl]. I are
     useful for treating a variety of cytokine-mediated diseases, particularly
     those mediated by CSBP/RK/p38 kinase, and may also be useful as antivirals
     (no data). For example, 2-(methylthio)pyrimidine-4-carboxaldehyde (prepn.
     given) was condensed with 4-amino-1-methylpiperidine-2HCl to give the
     imine (98%), which was cyclized with the tosylmethyl isocyanide deriv.
     4-FC6H4CH(Tos)N.tplbond.C (50%) to give imidazole deriv. II [R = SMe].
     This underwent S-oxidn. with K persulfate to give 83% II [R = S(O)Me],
     which was condensed with PhCH2NH2 (82%) to give title compd. II [R =
     NHCH2Ph].
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IT 186314-81-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of imidazole derivs. as cytokine inhibitors)

- RN 186314-81-8 CAPLUS
- CN 2-Pyrimidinamine, 4-[4-(4-fluorophenyl)-1-(1-methyl-4-piperidinyl)-1H-imidazol-5-yl]-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



- L12 ANSWER 34 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1996:171798 CAPLUS
- 124:232479 DN
- ΤI Preparation of pyrimidine derivatives as gastrointestinal movement accelerators
- Kikuchi, Haruhiko; Satoh, Hiroaki; Fukutomi, Ruta; Inomata, Kohei; Suzuki, IN Masashi; Hagihara, Koichiro; Arai, Takeo; Mino, Setsuko; Eguchi, Haruko
- Nisshin Flour Milling Co., Ltd., Japan PA
- PCT Int. Appl., 196 pp. SO CODEN: PIXXD2
- DTPatent
- English LΑ

FAN.	CNT 1			1
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
				<i>y</i>
ΡI	WO 9531442	A1 19951123	WO 1995-JP937	19950517
	W: BR, CA,	JP, KR, US		
	RW: BE, CH,	DE, ES, FR, GB,	IT, NL, SE	
	CA 2189963	AA 19951123	CA 1995-2189963	19950517 /
	EP 760368	A1 19970305	EP 1995-918728	19950517 /
	EP 760368	B1 19990728		,
	R: BE, CH,	DE, ES, FR, GB,	IT, LI, NL, SE	
	BR 9507666	A 19970923	BR 1995-7666	19950517
	ES 2136291	тз 19991116	ES 1995-918728	19950517
	US 5736550	A 19980407	US 1996-737335	19961115
PRAI	JP 1994-127161	19940518		
	WO 1995-JP937	19950517		

OS MARPAT 124:232479

- AB The title compds. I [X represents O or NR5, and Y represents O, S or NR5, R5 being hydrogen, C1-C6 alkyl, etc.; R1 and R2 represents each independently hydrogen, C1-C6 alkyl, etc.; R3 represents CN or COOR6, R6 being C1-C6 alkyl, C3-C6 cycloalkyl, aryl, etc.; and R4 represents SR7 or NR8R9, wherein R7 represents C1-C6 alkyl, R8 represents C1-C6 alkyl, etc., and R9 represents hydrogen, C1-C6 alkyl, etc., or R8 and R9 together with. the nitrogen atom to which they are bonded represent an N-substituted of the control of the cont piperazine ring] are claimed. In an in vitro test using elec. stimulated quinea pig ileum, the title compd. II (prepn. given) at 10-7 M promoted acetylcholine release.
- 174559-30-9P 174559-31-0P 174559-32-1P ΙT 174559-33-2P 174559-38-7P 174560-10-2P 174560-11-3P 174560-17-9P 174560-68-0P 174560-69-1P

RL: BAC (Biòlogical activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrimidine derivs. as gastrointestinal movement accelerators)

174559-30-9 CAPLUS RN

5-Pyrimidinecarbonitrile, 6-[[9-[(4-fluorophenyl)methyl]-3-oxa-9-CN azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2thioxo-, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 174559-31-0 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[(4-fluorophenyl)methyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-, monohydrochloride, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

● HCl

RN 174559-32-1 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[3-(4-fluorophenoxy)propyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 174559-33-2 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[3-(4-fluorophenoxy)propyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-, monohydrochloride, endo- (9CI) (CA INDEX NAME)

10

Relative stereochemistry.

● HCl

RN 174559-38-7 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[(4-fluorophenyl)methyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-, exo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 174560-10-2 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[1-[(4-fluorophenyl)methyl]-4-piperidinyl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 174560-11-3 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[1-[(4-fluorophenyl)methyl]-4-piperidinyl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-(9CI) (CA INDEX NAME)

RN 174560-17-9 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[[1-[(4-fluorophenyl)methyl]-4-piperidinyl]methyl]amino]-1,2,3,4-tetrahydro-4-imino-1,3-dimethyl-2-thioxo-(9CI) (CA INDEX NAME)

RN 174560-68-0 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[(4-fluorophenyl)methyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-1,3-dimethyl-4-(methylimino)-2-thioxo-, monohydrochloride, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

RN 174560-69-1 CAPLUS

CN 5-Pyrimidinecarbonitrile, 6-[[9-[(4-fluorophenyl)methyl]-3-oxa-9-azabicyclo[3.3.1]non-7-yl]amino]-1,2,3,4-tetrahydro-1,3-dimethyl-4-(methylimino)-2-thioxo-, endo- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

- L12 ANSWER 35 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1995:752265 CAPLUS
- DN 123:246036
- TI Putative atypical antipsychotics with mixed dopaminergic (D1, D2) and serotonergic (5HT2) activity: the design evolution of ZD3638
- AU Klimas, Michael T.; Goldstein, Jeffrey M.; Trainor, Diane A.; Jacobs, Robert T.; Ohnmacht, Cy J.; Roberts, Richard A.; Yee, Ying K.; Terpko, Marc O.; Thomas, Steve P.; et al.
- CS Dep. Med. Chem., Dep. Pharmacology, Zeneca Pharmaceuticals, Wilmington, DE, 19897, USA
- SO Bioorganic & Medicinal Chemistry Letters (1995), 5(16), 1795-800 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier
- DT Journal
- LA English
- AB The pharmacol. activity of a series of 9,10-dihydro-9,10-methanoanthracene methylene amines which function as mixed dopaminergic (D1/D2) and serotonergic (5HT2) antagonists is described. The work resulted in a putative atypical antipsychotic, ZD3638, of novel structure and pharmacol. profile.
- IT 168751-60-8

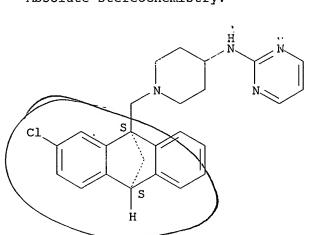
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(dihydromethanoanthracenes as putative atypical antipsychotics with mixed dopaminergic and serotonergic antagonist activity in relation to design evolution of ZD3638)

RN 168751-60-8 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L12 ANSWER 36 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1995:459445 CAPLUS

DN 122:214091

TI Preparation of benzimidazoles, xanthines, and analogs as tissue aggregation inhibitors

IN Austel, Volkhard; Pieper, Helmut; Himmelsbach, Frank; Linz, Guenter; Mueller, Thomas; Weisenberger, Johannes; Guth, Brian

PA Dr. Karl Thomae GmbH, Germany

SO Ger. Offen., 27 pp. CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

T.T.T.	214 1	_													
	PAT	ENT N	0.		KIND	DATE		AP	PLICATI	ON NO).	DATE			
		-													
PI	DE	43046	50		A1	199408	318	DE	1993-4	30465	50	1993	0216		
	ΕP	61166	0		A2	199408	324	EP	1994-1	.02222	2	19940	0214		
		R:	AT,	BE,	CH, DE,	DK, B	ES, FR	, GB,	GR, IE,	IT,	LI,	LU,	NL,	PT,	SE
	J₽	07002	839		A2	199501	L06	JP	1994-1	7568		19940	0214		
	CA	21157	37		AA	199408	317	CA	1994-2	11573	37	19940	0215		
	FI	94006	97		Α	199408	317	FI	1994-6	97		19940	0215		
	NO	94005	24		Α	199408	317	NO	1994-5	24		19940	0215		
	ΑU	94551	30		A1	199408	318	AU	1994-5	5130		19940	0215		
	ZA	94010	21		Α	199508	315	ZA	1994-1	.021		19940	0215		
PRAI	DE	1993-	4304	1650		199302	216								

OS MARPAT 122:214091

Title compds [I; A = (un)substituted C(:NH)NH2, -NHC(:NH)NH2,
-piperidinyl; B = Z, ZO, ZNR3, CONR3, etc.; R3 = H, (phenyl)alkyl; X1-X4 =
CO, CRb, NRb, CDER, etc.; D = alkylene, O, S, CO, CONR3, etc.; E = bond or
alkylene; R = CO2H, alkoxycarbonyl, SO3H, etc.; Rb = H, OH, alkyl, alkoxy,
NH2, etc.; l of Y1,Y2 = N or CH and the other = O or NRd; Rd = H,
(un)substituted (phenyl)alkyl, etc.; Z = alkylene; dashed lines = optional
position of addnl. bonds] were prepd. Thus, 4,3-Cl(O2N)C6H3COCl was
amidated by .beta.-alanine and the product converted in 3 steps to
3,4-(H2N)(MeHN)C6H3CONHCH2CH2CO2Me which was cyclocondensed with
3-(1-benzyloxycarbonyl-4-piperidinyl)propionyl chloride (prepn. given) and
the product converted in 2 steps to title compd. II.2HBr. The latter had:
EC50 of 430nM against collagen-induced platelet aggregation in vitro.

IT 161910-55-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of benzimidazoles, xanthines, and analogs as tissue aggregation inhibitors)

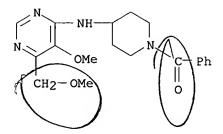
RN 161910-55-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[3-oxo-3-[[1,2,3,4-tetrahydro-1-methyl-6-(methylamino)-2,4-dioxo-5-pyrimidinyl]amino]propyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Page 147

```
L12 ANSWER 38 OF 54 CAPLUS COPYRIGHT 2003 ACS
AN
     1994:134510 CAPLUS
DN
     120:134510
     Preparation of substituted pyrimidines as pesticides
TI
IN
     Schaper, Wolfgang; Preuss, Rainer; Salbeck, Gerhard; Braun, Peter; Knauf,
     Werner; Sachse, Burkhard; Waltersdorfer, Anna; Kern, Manfred; Luemmen,
     Peter; Bonin, Werner
     Hoechst A.-G., Germany
PA
     Ger. Offen., 55 pp.
SO
     CODEN: GWXXBX
DΤ
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LA
     German
FAN.CNT 1
                                         APPLICATION NO.
     PATENT NO.
                     KIND DATE
                           -----
                                          _____
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                                         DE 1992-4208254 19920314
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    DE 4208254
                           19930916
    WO 9319050
                     A1 19930930
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        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
            BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                      A1
                                        AU 1993-37466
                                                           19930310
    AU 9337466
                           19931021
    AU 671108
                           19960815
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    EP 631575
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                           19950104
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                      B1
                           20011004
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT
    HU 67295
                      A2
                          19950328
                                         HU 1994-2620
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                                          JP 1993-516214
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                           19971118
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                           19990316
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                           20011015
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                                                           19930310
                     Y. .
                                          US 1993-29889
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                           19961105
                                                           19930311
                     Α
                                          ZA 1993-1774
     ZA 9301774
                           19930930
                                                           19930312
                     A1
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     IL 105042
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                           19930929
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     CN 1043886
                      В
                           19990630
PRAI DE 1992-4208254
                      Α
                           19920314
     WO 1993-EP536
                           19930310
                      Α
    MARPAT 120:134510
OS
     Title compds. [I; R = XEQ; E = bond, alkylene; Q = (substituted) C3-8
AB
     cycloalkyl, N-(hetero)aryl(carbonyl)-4-piperidyl, etc.; R1 = H, halo,
     (cyclo)alkyl; R2 = H, halo, (halo)alkyl, alkoxy, etc.; R3 = H, halo,
     (halo)alkyl, alkoxy, NH2, etc.; or R2R3 = atoms to form a ring; X = NH or
     O] were prepd. as acaricides, agrochem. fungicides, insecticides,
     nematocides, etc. Thus, 4-chloro-5,6,7,8-tetrahydroquinazoline was
     condensed with cis-4-phenylcyclohexanol to give title compd. II, which
     gave complete control of Pyrenophora teres on barley plants at 500 mg/L.
TΤ
     152809-07-9P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of, as pesticide)
RN
     152809-07-9 CAPLUS
     4-Piperidinamine, 1-benzoyl-N-[5-methoxy-6-(methoxymethyl)-4-pyrimidinyl]-
CN
```

(9CI) (CA INDEX NAME)





```
L12 ANSWER 40 OF 54 CAPLUS COPYRIGHT 2003 ACS
AN
    1993:449413 CAPLUS
    119:49413
DN
    New pyrazine derivatives, their preparation and their use as ingredients
ΤI
    in drugs
IN
    Koeppe, Herbert; Speck, Georg; Stockhaus, Klaus
PA
    Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim
SO
    PCT Int. Appl., 37 pp.
    CODEN: PIXXD2
DT
    Patent
LΑ
    German
FAN.CNT 2
                                   APPLICATION NO. DATE
    PATENT NO.
                    KIND DATE
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    WO 9304048 A1 19930304 WO 1992-EP1738 19920731
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            KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                                    DE 1991-4127026 19910816
                     A1 19930218
    DE 4127026
    DE 4130461
                     A1 19930318
                                        DE 1991-4130461 19910913
                                       AU 1992-23870
    AU 9223870
                    A1 19930316
                                                         19920731
    AU 669122
                     B2 19960530
                                         EP 1992-916697
                                                         19920731
    EP 598770
                    A1 19940601
    EP 598770
                     B1 19971015
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
    JP 06509798 T2 19941102
                                         JP 1992-504057 19920731
    NO 9400523
                     Α
                         19940215
                                         NO 1994-523
                                                         19940215
PRAI DE 1991-4127026 A
                         19910816
    DE 1991-4130461 A 19910913
WO 1992-EP1738 A 19920731
    CASREACT 119:49413; MARPAT 119:49413
OS
    A process for the prepn. of pyrazine deriv. I where R1 = H or alkyl, R2 =
AR
    functionalized alkyl moiety, R3, R5 = H and R4, R6 = H, Me, Et, Bu, benzyl
    3-amino-5,6-dichloropyrazine-2-carboxylate and 3.6 g of
    gave an intermediate pyrazinecarboxylic acid ester which underwent
    subsequent ammonolysis in 50 mL MeOH and 80mL of methanolic quanidine
```

was accomplished by conventional methods. E.g., reaction of 4.44 g of Me 2-amino-1-(2,6-dimethylphenoxy)propane with 2.2 g Et3N in 40 mL anhyd. DMF soln. and eluted on silica gel by AcOH:i-PrOH:NH3 eluent to give N-amidino-3-amino-6-chloro-5-(2-[1-(2,6-dimethylphenoxy)]propylamino)pyraz ine-2-carboxamide-hydrochloride. The products are suitable for use as active ingredients in drugs (no data).

IT 147932-04-5P 147932-05-6P 147932-06-7P 147958-45-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

147932-04-5 CAPLUS RN

Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-CN hydroxy-3-(3-methoxyphenoxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147932-05-6 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-hydroxy-3-(1-naphthalenyloxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147932-06-7 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-5-[(1-benzoyl-4-piperidinyl)amino]-6-chloro-(9CI) (CA INDEX NAME)

RN 147958-45-0 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-hydroxy-3-[4-(2-methoxyethyl)phenoxy]propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

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L12 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2003 ACS
     1993:408831 CAPLUS
AN
DN
     119:8831
TI
     Preparation of 2-quanidinocarbonyl-3,5-diamino-6-chloropyrazines as drugs
TN
     Koeppe, Herbert; Speck, Georg; Stockhaus, Klaus
PA
     Boehringer Ingelheim KG, Germany
ŚО
     Ger. Offen., 19 pp.
     CODEN: GWXXBX
DТ
     Patent
     German
LA
FAN.CNT 2
     PATENT NO.
                      KIND
                           DATE
                                          APPLICATION NO.
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PΙ
     DE 4127026
                      A1
                            19930218
                                          DE 1991-4127026
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     WO 9304048
                      A1
                            19930304
                                          WO 1992-EP1738
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             KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                            19930316
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     AU 9223870
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    AU 669122
                      B2
                            19960530
     EP 598770
                      A1
                            19940601
                                           EP 1992-916697
                                                            19920731
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                      ·B1
                            19971015
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
                                                            19920731
     JP 06509798
                      Т2
                            19941102
                                           JP 1992-504057
     HU 67661
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                            19950428
                                          HU 1994-430
                                                            19920731
     CZ 280760
                      В6
                            19960417
                                          CZ 1994-337
                                                            19920731
    AT 159250
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                                          ES 1992-916697
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                      C1
                           19981227
                                          RU 1994-15265
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                      Α
                           19930331
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PRAI DE 1991-4127026
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     DE 1991-4130461
                      Α
                            19910913
    WO 1992-EP1738
                            19920731
                                                                            er.
                      Α
    MARPAT 119:8831
OS.
ĂΒ
     Title compds. [I; R1 = H, alkyl; R2 = morpholino, (substituted) alkyl,
     4-piperidinyl, amidino; R1R2N = (substituted) piperidinyl, piperazinyl;
     R3-R6 = H, alkyl, PhCH2], effective inhibitors of Na+/H+ and Na+/Li+
     exchange useful as antihypertensives, mucolytics, diuretics, neoplasm
     inhibitors, and platelet activating factor antagonists (no data), are
     prepd. Thus, Me 3-amino-5,6-dichloropyrazine-2-carboxylate,
     2-amino-1-(2,6-dimethylphenoxy)propane, and Et3N were heated in DMF at
     95-100.degree. for 1.5 h to give Me 3-amino-6-chloro-5-[2-[1-(2,6-
     dimethylphenoxy)]propylamino]pyrazine-2-carboxylate. This was heated with
     guanidine in MeOH to give title compd. II.
IT
     147932-04-5P 147932-05-6P 147932-06-7P
     147958-45-0P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of, as drug)
RN
     147932-04-5 CAPLUS
     Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-
     hydroxy-3-(3-methoxyphenoxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX
     NAME)
```

PAGE 2-A

RN 147932-05-6 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-hydroxy-3-(1-naphthalenyloxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147932-06-7 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-5-[(1-benzoyl-4-piperidinyl)amino]-6-chloro-(9CI) (CA INDEX NAME)

RN 147958-45-0 CAPLUS

CN Pyrazinecarboxamide, 3-amino-N-(aminoiminomethyl)-6-chloro-5-[[1-[2-hydroxy-3-[4-(2-methoxyethyl)phenoxy]propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

- L12 ANSWER 42 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1993:234090 CAPLUS
- DN 118:234090
- TI Preparation of 2-[(4-phenylpiperazinoalkyl)amino]pyrimidine-4-carboxamide derivatives as antagonists of .alpha.1-adrenergic receptors
- IN George, Pascal; Manoury, Philippe; Marabout, Benoit; Froissant, Jacques;
 Merly, Jean Pierre
- PA Synthelabo S. A., Fr.
- SO Eur. Pat. Appl., 25 pp. CODEN: EPXXDW
- DT Patent
- LA French
- FAN.CNT 1

os

ran.		ENT NO.	KIND	DATE	APPLICATION NO. DATE
PI		520883 520883	Al		EP 1992-401773 19920624
		R: AT, B	E, CH, DE	, DK, ES,	FR, GB, GR, IT, LI, LU, MC, NL, PT, SE FR 1991-7939 19910627
		2678272 2077998	B1 T3		ES 1992-401773 19920624
	CA	2072433	AA A	19921228 19921228	CA 1992-2072433 19920626
	AU	9218588	A1	19930107	
	CN	1067885		19931202 19930113	
		61749 9204785	A2 A	19930301 19930331	
		05186435 3159526	A2 B2	19930727 20010423	JP 1992-169073 19920626
PRAI		5244894 1991-7939	A A	19930914 19910627	US 1992-904060 19920626 ·

AB Title compds. I [n = 2, 3; X = one or more chosen from H, F, Cl, MeO; R = H, Me; R1 = H, Me, R2 = Cl-6 alkyl, C2-3 hydroxyalkyl, C2-3 hydroxyalkyl, C2-3 hydroxy(methoxy)alkyl, C2-3 dimethoxyalkyl, 2-(aminosulfonyl)ethyl, 2-(methylsulfonyl)ethyl, CH2CONY1Y2 (Y1, Y2 = H, Cl-6 alkyl), (CH2)2Ar (Ar = (un)substituted Ph with methoxy or aminosulfonyl group(s)), pyrimidinylaminoalkyl or arylcarbonylaminoalkyl; or R1R2 form (un)substituted N heterocycles piperidine, morpholine, thiomorpholine, piperazine] are prepd. by treatment of the appropriate N-unsubstituted carboxamide with an aliph. alc. to give the ester, then reaction of the ester with an amine (directly if a primary amine, or with Me3Al and secondary amine) to give product. Compds. I and their pharmaceutically acceptable salts or formulations are .alpha.1-adrenergic receptor antagonists.

IT 147117-55-3P 147117-56-4P 147529-63-3P 147529-65-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, as antagonist of .alpha.1-adrenergic receptors)

RN 147117-55-3 CAPLUS

MARPAT 118:234090

CN 4-Piperidinamine, 1-[[2-[[3-[4-(5-chloro-2-methoxyphenyl)-1-piperazinyl]propyl]amino]-4-pyrimidinyl]carbonyl]-N-(1,4-dihydro-4-oxo-2-pyrimidinyl)- (9CI) (CA INDEX NAME)

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 & N \\$$

RN 147117-56-4 CAPLUS

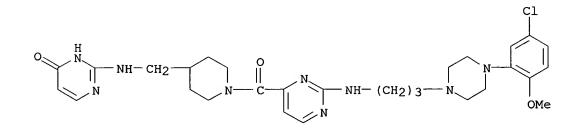
CN 4-Piperidinamine, 1-[[2-[[2-[4-(5-chloro-2-methoxyphenyl)-1-]]
piperazinyl]ethyl]amino]-4-pyrimidinyl]carbonyl]-N-(1,4-dihydro-4-oxo-2pyrimidinyl)- (9CI) (CA INDEX NAME)

RN 147529-63-3 CAPLUS

CN Piperidine, 1-[[2-[[3-[4-(5-chloro-2-methoxyphenyl)-1-piperazinyl]propyl]amino]-4-pyrimidinyl]carbonyl]-4-[[(1,4-dihydro-4-oxo-2-pyrimidinyl)amino]methyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 148023-30-7 CMF C29 H38 C1 N9 O3



CM 2

CRN 144-62-7 CMF C2 H2 O4

RN 147529-65-5 CAPLUS

CN Piperidine, 1-[[2-[[2-[4-(5-chloro-2-methoxyphenyl)-1-piperazinyl]ethyl]amino]-4-pyrimidinyl]carbonyl]-4-[[(1,4-dihydro-4-oxo-2-pyrimidinyl)amino]methyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147529-64-4 CMF C28 H36 Cl N9 O3

PAGE 1-A

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PAGE 1-B

CM 2

CRN 144-62-7 CMF C2 H2 O4

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L12 ANSWER 43 OF 54 CAPLUS COPYRIGHT 2003 ACS
    1993:213105 CAPLUS
AN
    118:213105
DN
     Preparation of 2-aminopyrimidine-4-carboxamide derivatives as
ΤI
     .alpha.1-adrenergic receptor antagonists
    George, Pascal; Maloizel, Christian; Marabout, Benoit; Merly, Jean Pierre
TN
PA
    Synthelabo S. A., Fr.
SO
    Eur. Pat. Appl., 16 pp.
    CODEN: EPXXDW
DT
    Patent
LΑ
    French
FAN.CNT 2
                    KIND DATE
                                        APPLICATION NO.
                                                         DATE
     PATENT NO.
                          _____
PΙ
    EP 520882
                     A1
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                                        EP 1992-401771
                                                         19920624
    EP 520882
                     B1 19950712
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE
                                       FR 1991-7938
    FR 2678268 A1 19921231
                                                         19910627
                     В1
    FR 2678268
                          19930903
                    A1 19931119
                                         FR 1992-6005
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    FR 2691148
                    T3 19951116
                                        ES 1992-401771
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                    A 19921228
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                                       CN 1992-105077
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                    A2 19930301
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                          19930921
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                     Α
PRAI FR 1991-7938
                     Α
                          19910627
                     A 19920518
    FR 1992-6005
    MARPAT 118:213105
OS
    Title compds. I (X = one or more substituents chosen from H, F, Cl, Me, x)
AB
    Me2CH, MeO; n = 2, 3, m = 1, p = 1 or n = 2, 3, m = 0, p = 2; q = 0, 1),
    isolated as hydrochloride or fumarate salts, are prepd. by amination of
     2-chloropyrimidine-4-carboxamide with the appropriate substituted amine
    which is prepd. by two different approaches. Compds. I are
     .alpha.1-adrenergic receptor antagonists, as studied in isolated rabbit
    urethra.
ΙT
    146993-07-9P 146993-08-0P 147007-65-6P
    147007-66-7P 147007-67-8P 147007-68-9P
    147007-69-0P 147007-70-3P 147007-72-5P
    147007-75-8P 147396-86-9P 147396-87-0P
    147396-88-1P 147396-89-2P 147396-91-6P
     147396-94-9P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of, as .alpha.1-adrenergic receptor antagonist)
RN
     146993-07-9 CAPLUS
```

4-Pyrimidinecarboxamide, 2-[[1-[2-(2-methoxyphenoxy)ethyl]-4-piperidinyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

CN

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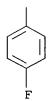
0

HCl

RN 146993-08-0 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[2-(4-fluorophenoxy)ethyl]-4-piperidinyl]amino]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 2-A



HCl

RN 147007-65-6 CAPLUS
CN 4-Pyrimidinecarboxamide, 2-[[1-[2-(2-methoxyphenoxy)ethyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

||

147007--66-7 CAPLUS RN CN

4-Pyrimidinecarboxamide, 2-[[1-[2-(4-fluorophenoxy)ethyi]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147007-67-8 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[2-(5-fluoro-2-methoxyphenoxy)ethyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147007-68-9 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[2-[5-methyl-2-(1-methylethyl)phenoxy]ethyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147007-69-0 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[3-(5-fluoro-2-methoxyphenoxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

RN 147007-70-3 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[3-(4-fluorophenoxy)propyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

| |-

RN 147007-72-5 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[2-(4-fluorophenoxy)ethyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 147007-75-8 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[2-(5-chloro-2-methoxyphenoxy)ethyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 147396-86-9 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[2-(5-fluoro-2-methoxyphenoxy)ethyl]-4-piperidinyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-67-8 CMF C19 H24 F N5 O3

PAGE 2-A

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

$$_{\text{HO}_2\text{C}}$$
 $^{\text{E}}$ $_{\text{CO}_2\text{H}}$

RN 147396-87-0 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[2-[5-methyl-2-(1-methylethyl)phenoxy]ethyl]-4-piperidinyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-68-9 CMF C22 H31 N5 O2

PAGE 2-A

75

С-NH₂

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 147396-88-1 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[3-(5-fluoro-2-methoxyphenoxy)propyl]-4-piperidinyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-69-0 CMF C20 H26 F N5 O3

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 147396-89-2 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[1-[3-(4-fluorophenoxy)propyl]-4-piperidinyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-70-3 CMF C19 H24 F N5 O2

PAGE 2-A

| F

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

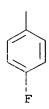
RN 147396-91-6 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[2-(4-fluorophenoxy)ethyl]-4-piperidinyl]methyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-72-5 CMF C19 H24 F N5 O2

PAGE 2-A



CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

RN 147396-94-9 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-[[[1-[2-(5-chloro-2-methoxyphenoxy)ethyl]-4-piperidinyl]methyl]amino]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 147007-75-8 CMF C20 H26 C1 N5 O3

PAGE 1-A

PAGE 2-A

CM 2

CRN 110-17-8 CMF C4 H4 O4

Double bond geometry as shown.

L12 ANSWER 44 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1992:235661 CAPLUS

DN 116:235661

ΤI Preparation of diphenylazines as antithrombotics vasodilators, antihypertensives, and antiinflammatories

IN Takasugi, Hisashi; Sakai, Hiroyoshi; Tanaka, Akito; Ishikawa, Takatoshi

Fujisawa Pharmaceutical Co., Ltd., Japan PA

SO PCT Int. Appl., 121 pp. CODEN: PIXXD2

DTPatent

English LΑ

FAN.CNT 1

	PAT	TENT 1	.OV		KIN	ND	DATE			APE	PLICA	TION	и ио).	DATE	
ΡI	WO	9202			A1	 1	1992	0220		WO	1991	-JP1	1042	:	1991	0805
			JP, AT,		CH,	DE,	DK,	ES,	FR,	GB, G	GR, I	т, 1	LU,	NL,	SE	
	JP	0650	1926		T2	2	1994	0303		JP	1991	-513	3247	•	1991	0805
PRAI	GB	1990-	-1718	33			1990	0806								
	GB	1990-	-2034	15			1990	0918								
	WO	1991-	-JP1(042			1991	0805								

OS MARPAT 116:235661

Title compds. [I; R1,R2 = alkoxy; R3 = (substituted) (tetrahydro)pyridyl, AB piperidyl, piperazinyl, morpholinyl, substituted amino, carboxyalkyl, carboxyalkenyl, hydroxyalkyl, CHO, EtO2C, alkylaminocarbonyl, etc.; Y,Z = CH, N], were prepd. Thus, 3-ethoxycarbonyl-5,6-bis(4-methoxyphenyl)-1,2,4trriazine and N-methylpiperazine were heated at 80-90.degree. for 4 h 40 min to give, after treatment with HCl in EtOH, title compd. II. In an ex vivo screen, II at 1.0 mg/kg orally gave 100% inhibition of arachidonic acid induced platelet aggregation in guinea pig platelet rich plasma.

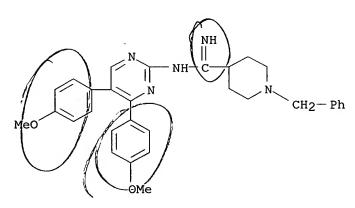
IT 141425-06-1P

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BJOL (Biological study); PREP (Preparation); USES (Uses) b-10.

(prepn. of, as cardiovascular agent)

141425-06-1 CAPLUS RN

4-riperidinecarboximidamide, N-[4,5-bis(4-methoxyphenyl)-2-pyrimidinyl] 1-CN (phenylmethyl) - (9CI) (CA INDEX NAME)



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L12 ANSWER 45 OF 54 CAPLUS COPYRIGHT 2003 ACS
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AN 1992:41481 CAPLUS

DN 116:41481

TI Preparation of new piperazine- and piperidine-containing azaspiro[4.5]decane-7,9-dione derivatives with serotoninergic activity

IN Orjales Venero, Aurelio; Rodes Solanes, Rosa

PA Fabrica Espanola de Productos Quimicos y Farmaceuticos S. A. (FAES), Spain

SO Span., 8 pp. CODEN: SPXXAD

DT Patent

LA Spanish

FAN.CNT 1

TAN.ONI I								
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
								
PI	ES 2019228	A 6	19910601	ES 1990-421	19900213			
	FI 9100652	Α	19910814	FI 1991-652	19910211			
	EP 447345	A2	19910918	EP 1991-500014	19910211			
	EP 447345	A3	19920415					
	R: AT, BE,	CH, DE	, DK, FR, GB,	GR, IT, LI, LU, NL	, SE			
	NO 9100564	Α	19910814	NO 1991-564	19910212			
	AU 9170983	A1	19910815	AU 1991-70983	19910212			
	CA 2036269	AA	19910814	CA 1991-2036269	19910213			
	JP 08092221	A2	19960409	JP 1991-41144	19910213			
PRAI	ES 1990-421		19900213					

OS MARPAT 116:41481

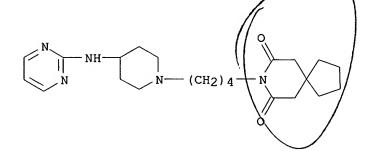
Title compds. I [X = N, CH; n = 2 or 4; Z = pyrimidin-2-ylamino, 3-F3CC6H4, or benzimidazol-2-yl substituted in 1-position by lower alkyl or 4-FC6H4CH2] are prepd. by cyclocondensation of 3,3-tetramethyleneglutaric anhydride (II) with corresponding amines in, e.g., pyridine, PhMe, or BuOH, at 80-140.degree., preferably at reflux temp. Thus, reaction of II with 1-(4-aminobutyl)-4-[3-(trifluoromethyl)phenyl]piperazine in refluxing pyridine over 20 h gave 66% I (X = N, n = 4, Z = 3-F3CC6H4). I showed 5-HT1A receptor activity (displacement of [3H]-8-OH-DPAT from rat frontal cortex tissue) similar to buspirone (Ki = 1.99 times. 10-6).

IT 138307-24-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, as nervous system agent)

RN 138307-24-1 CAPLUS

CN 8-Azaspiro[4.5]decane-7,9-dione, 8-[4-[4-(2-pyrimidinylamino)-1-piperidinyl]butyl]- (9CI) (CA INDEX NAME)



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L12 ANSWER 46 OF 54 CAPLUS COPYRIGHT 2003 ACS
    1991:23983 CAPLUS
AN
DN
    114:23983
TI
    Preparation of 2-aminopyrimidines as nervous system agents
    Tomino, Ikuo; Takesue, Mitsuyuki; Kihara, Noriaki; Kitahara, Takumi;
    Awaya, Akira; Horikomi, Kazutoshi; Sasaki, Tadayuki; Mizuchi, Akira
    Mitsui Petrochemical Industries, Ltd., Japan; Mitsui Pharmaceuticals, Inc.
PA
SO
    Eur. Pat. Appl., 154 pp.
    CODEN: EPXXDW
DΤ
    Patent
    English
LA
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                         APPLICATION NO.
                                                          DATE
                     ____
                          _____
                     A2
PΙ
    EP 379806
                           19900801
                                         EP 1989-313595
                                                          19891227
    EP 379806
                     A3
                          19910529
                    B1 19960410
    EP 379806
        R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
                A2 19900904
    JP 02221275
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                                                          19890223
    HU 52769
                     A2
                          19900828
                                         HU 1989-6762
                                                          19891222
                    В
    HU 206337
                          19921028
                    A2 19921228
    HU 61288
                                         HU 1992-1488
                                                          19891222
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    HU 209574
                    A2 19921228
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                                                          19891222
    HU 210001
                    B 19950130
                    A2 19921228
    HU 61313
                                         HU 1992-1487
                                                          19891222
    HU 209594
                    B 19940829
    JP 03014568
                    A2 19910123
                                         JP 1989-334759
                                                          19891226
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                          19980428
    EP 612746
                    A1
                          19940831
                                         EP 1994-105018
                                                          19891227
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    AT 136542 E
                          19960415
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    AU 8947329
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    AU 629595
                    AA 19900629 CA 1989-2006944
A 19900919 CN 1989-109731
B 19980225
    CA 2006944
                                                          19891229
                                                                      .
                                                         19891229 . ...
    CN 1045390
    CN 1037513
                    A 19920915
    US 5147876
                                         US 1989-459376
                                                          19891229
                    Α
    US 5264435
                         19931123
                                         US 1992-888726
                                                          19920526
    CN 1090846
                    Α
                                         CN 1993-119388
                         19940817
                                                          19931021
PRAI JP 1988-333670
                          19881229
    JP 1989-41728
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    JP 1989-41729
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    HU 1989-6762
                           19891222
    EP 1989-313595
                           19891227
    US 1989-459376
                          19891229
OS
    MARPAT 114:23983
AB
    The title compds. [I; R1 = H, alkyl; X = morpholino, (substituted)
    pyrrolidino, piperidino, azepino, piperazino, tetrahydroquinolinyl,
    tetrahydroisoquinolinyl, etc.; Y = amino, pyridin-4-ylcarbonyl,
    piperidinyl-N-carbonyl, phenylcarbamoyl, benzoyl, phthalimido, etc.,
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pyrrolidino, piperidino, azepino, piperazino, tetrahydroquinolinyl, tetrahydroisoquinolinyl, etc.; Y = amino, pyridin-4-ylcarbonyl, piperidinyl-N-carbonyl, phenylcarbamoyl, benzoyl, phthalimido, etc., CH2R2; R2 = H, alkyl, alkoxy, alkylthio, dialkylamino; Z = H, halo, alkyl, alkoxycarbonyl], were prepd. Thus MeNH2 in MeOH was added to 2,4-dichloropyrimidine in CH2Cl2 at 5.degree. followed by stirring for 12 h at room temp. to give 2-chloro-4-methylaminopyrimidine. The latter was heated with 4-phenylpiperidine in BuOH at 130.degree. for 1 h to give 4-methylamino-2-(4-phenylpiperdino)pyrimidine. The latter in THF contg. Et3N was treated with PhCOCl in THF and then with pyridine. The mixt. was

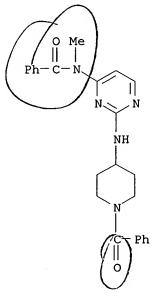
stirred 2 days to give 70% title compd. II. I increased twitch tension in rats with crushed sciatic nerves from 33.3% of normal (controls) to 48.1-51.2% at 10-30 ng/kg i.p. daily over 30 d.

IT 131037-31-5P 131038-42-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, as nervous system agent)

RN 131037-31-5 CAPLUS

CN Benzamide, N-[2-[(1-benzoyl-4-piperidinyl)amino]-4-pyrimidinyl]-N-methyl-(9CI) (CA INDEX NAME)



RN 131038-42-1 CAPLUS

CN Benzamide, N-[2-[(1-benzoyl-4-piperidinyl)amino]-4-pyrimidinyl]-N-methyl-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 131037-31-5 CMF C24 H25 N5 O2

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

- L12 ANSWER 49 OF 54 CAPLUS COPYRIGHT 2003 ACS
- 1989:114567 CAPLUS AN
- DN 110:114567
- TI Preparation of (4-Piperidinylmethyl and -hetero)purines as antiallergic
- IN Janssens, Frans Eduard; Diels, Gaston Stanislas Marcella
- PA Janssen Pharmaceutica N. V., Belg.
- Eur. Pat. Appl., 102 pp. SO CODEN: EPXXDW
- \mathbf{DT} Patent
- LA English

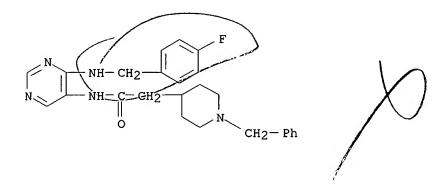
FAN.CNT 1								
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
ΡI				EP 1986-201048	19860617			
	EP 206415							
		B1						
				, LI, LU, NL, SE				
	CA 1267889			CA 1986-511113				
	SU 1581221	A 3	19900723	SU 1986-4027617	19860610			
	AT 85055	E	19930215	AT 1986-201048				
				JP 1986-143155				
	ES 556381	A1	19871116	ES 1986-556381	19860620			
	FI 8602655	Α	19861225	ES 1986-556381 FI 1986-2655	19860623			
	FI 85704	В	19920214					
	FI 85704	С	19920525					
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	DK 169073	B1	19940808					
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	NO 163956 NO 163956	В	19900507					
	NO 163956	С	19900815					
	AU 8659191	A1	19870108	AU 1986-59191	19860623			
	AU 588890		19890928					
		A2	19870629	HU 1986-2631	19860623			
	HU 199143.			•				
	ZA 8604677 · ·							
	ГL 79193	` A1	19901105	IL 1986-79193	19860623			
	US 5041448	Α	19910820	US 1989-323250	19890309			
	US 5258380	Α	19931102	US 1991-719273	19910621			
PRAI	GB 1985-15934		19850624					
	US 1986-858339		19860501					
	EP 1986-201048		19860617					
	US 1989-323250		19890309					
A D	The title semade	т гл	1.72.72.71 -	M.CUM.CU CU.MCU.M	whorein 1 or			

AB The title compds. I [A1:A2:A3:A4 = N:CHN:CH, CH:NCH:N, wherein 1 or 2 H]may each be replaced by halo, C1-6 alkyl, C1-6 alkoxy, F3C, HO; R1 = H, C1-10 alkyl, C3-6 cycloalkyl, etc.; R2 = H, C1-6 alkyl; B = H2C, O, S, SO, SO2, NR, R = H, C1-6 alkyl, C3-6 cycloalkyl, etc.; L = (un) substituted methoxyalkyl, -methylthioalkyl, -alkoxycarbonyl, alkylthio, (un) substituted alkyl, optionally with heteroatom interrupters, (un) substituted N-heterocyclyl, (un) substituted pyrimidinyloxyalkyl, -thioalkyl, etc., with restrictions] and their salts, useful as antiallergic agents, were prepd. 2-Ethenylpyridine, 9-[(4fluorophenyl)methyl]-N-(4-piperidinyl)-9H-purin-8-amine and BuOH were refluxed overnight to give 9-[(4-fluorophenyl)methyl]-N-[1-[2-(2pyridinyl)ethyl]-4-piperidinyl]-9H-purin-8-amine (II). In tests in rats against compd. 48/80, a potent histamine releasing agent, at 0.5 mg/kg, the ED50 of II was 0.01 mg/kg.

IT 116062-35-2P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and cyclization with phosphoryl chloride)

RN 116062-35-2 CAPLUS

CN 4-Piperidineacetamide, N-[4-[[(4-fluorophenyl)methyl]amino]-5-pyrimidinyl]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



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L12 ANSWER 50 OF 54 CAPLUS COPYRIGHT 2003 ACS
AN.
     1988:630817 CAPLUS
DN
     109:230817
                                                                 Same or #48
ΤI
     Preparation and testing of 4-(heterocyclylacylamino)piperidines as
     narcotic antagonists and analgesics
IN
     Bagley, Jerome R.; Spencer, Kenneth H.
PA
     BOC Inc., USA
     Eur. Pat. Appl., 20 pp.
SO
     CODEN: EPXXDW
DT
     Patent
     English
LΑ
FAN.CNT 2
     PATENT NO.
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                            DATE
                                           APPLICATION NO.
                                                            DATE
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PI
     EP 277794
                       A2
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                            19881213
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                                                            19881007
     US 4954506
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PRAI US 1987-9857
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                                                                            3
     US 1989-362119
                            19890606
     CASREACT 109:230817; MARPAT 109:230817
OS
     The title compds. [I; R = 4-10 membered (substituted) heterocyclyl; R1 =
AB
     furanyl, thienyl, alkoxyalkyl; R2 = phenylalkyl] useful as narcotic
     antagonists and analgesics, were prepd. A mixt. of 2-chloro-4-
     methylpyridine N-oxide (prepn. given) and N-phenethyl-4-aminopiperidine
     was refluxed 48 h in ME2CHCH2CH2OH contg. Na2CO3 and KI and the coupling
     product was treated with PCl3 in CHCl3 to give N-phenethyl-4-(4-
     methylpyrid-2-yl)aminopiperidine, which was treated with 2-furoylchloride
     in Et3N/CHCl3 for 30 min at room temp to give N-(4-methylpyrid-2-yl)-N-[1-
      (2-phenylethyl)-4-piperidyl)-2-furamide. I had ED50's of 0.081-10.0 mg/kg
     i.v. in the hot plate analgesia test in mice.
IT
     117523-88-3P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn. of, as intermediate for narcotic antagonist and analgesic)
BN
     117523-88-3 CAPLUS
```

Pyrazinamine, N-[1-(2-phenylethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

CN

10/079,452 (species - Ex17)

L12 ANSWER 51 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1988:94512 CAPLUS

DN 108:94512

TI 8-Aryl- and 8-cycloalkyl-1,3-dipropylxanthines: further potent and selective antagonists for Al-adenosine receptors

AU Shamim, M. T.; Ukena, D.; Padgett, W. L.; Hong, O.; Daly, J. W.

CS Lab. Bioorg. Chem., Natl. Inst. Diabetes, Dig. Kidney Dis., Bethesda, MD, 20892, USA

SO Journal of Medicinal Chemistry (1988), 31(3), 613-17 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

OS CASREACT 108:94512

AB A series of 1,3-dipropylxanthines were prepd. with a variety of substituents, including aryl and cycloalkyl groups, at the 8-position. Polar carboxylate and carboxamide moieties were introduced as aryl substituents to increase H2O soly. 1,3-Dipropyl-8-[2-hydroxy-4-[(carboxymethyl)oxy]phenyl]xanthine (I) is a functionalized congener with high potency (Ki = 37 nM) and selectivity (54-fold) for Al-adenosine receptors. I was used to prep. a series of other analogs, some with higher potency and some with higher selectivity. 8-Cyclopentyl- and 8-cyclohexyl-1,3-dipropylxanthines were both very potent (Ki = 1-1.5 nM) and selective for Al receptors, while 8-cycloalkylmethyl analogs were 10-fold less potent, but still very selective for Al receptors. 8-Piperidinyl and 8-pyrazinyl analogs had very low activities as adenosine receptor antagonists.

IT 112683-79-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and cyclization of)

RN 112683-79-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-amino-1,2,3,4-tetrahydro-2,4-dioxo-1,3-dipropyl-5-pyrimidinyl)amino]carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

10/079,452 (species - Ex17)

L12 ANSWER 54 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1974:103776 CAPLUS

DN 80:103776

TI Antimalarial drugs. 35. Synthesis and antimalarial effects of 1-(3,4-dichlorophenyl)-3-[4-[(1-ethyl-3-piperidyl)amino]-6-methyl-2-pyrimidinyl]guanidine and related substances

AU Elslager, Edward F.; Werbel, Leslie M.; Curry, Ann; Headen, Nancy; Johnson, Judith

CS Res. Dev. Div., Parke, Davis and Co., Ann Arbor, MI, USA

SO Journal of Medicinal Chemistry (1974), 17(1), 75-100 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

AB Structure-antimalarial activity of 1-(3,4-dichlorophenyl)-3-[4-[(1-ethyl-3-piperidyl)amino]-6-methyl-2-pyrimidinyl]guanidine (I) [21062-28-2] and 120 analogs prepd. by condensation of the aryl(4-chloro-6-methyl-2-pyrimidinyl)guanidine derivs. with the appropriate polyamines is given. Curative activity against Plasmodium berghei infection in mice was shown by 90 compds. in single s.c. doses of 20-640 mg/kg. While 62 compds showed suppressive activity after oral administration, 46 of them were 2-30 times as potent as quinine-HCl [130-89-2]. Strong suppressive activity against P. gallinaceum in chicks was shown by 59 compds.

IT 51387-28-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and antimalarial activity of)

RN 51387-28-1 CAPLUS

CN Guanidine, N-(3,4-dichlorophenyl)-N'-[4-methyl-6-[[1-(phenylmethyl)-4-piperidinyl]amino]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

10/079,452 (species - Ex17)

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(FILE 'HOME' ENTERED AT 19:29:05 ON 22 MAY 2003)

FILE 'REGISTRY' ENTERED AT 19:29:10 ON 22 MAY 2003 L1SCREEN 1840 SCREEN 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047 L2 L3 STRUCTURE UPLOADED QUE L3 AND L1 NOT L2 L40 S L4 SSS SAM L5 SCREEN 1840 L6 SCREEN 2016 OR 2026 OR 2039 OR 2040 OR 2045 OR 2047 L7 STRUCTURE UPLOADED rsL9QUE L8 AND L6 NOT L7 3 S L9 SSS SAM L10 L11332 S L9 SSS FUL

FILE 'CAPLUS' ENTERED AT 19:32:49 ON 22 MAY 2003 L12 54 S L11

FILE 'CAOLD' ENTERED AT 19:34:00 ON 22 MAY 2003

=> s 111

L13 0 L11

CA SUBSCRIBER PRICE

=> log y

COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
SESSION

0.00

-35.15

, H. &-

STN INTERNATIONAL LOGOFF AT 19:34:13 ON 22 MAY 2003

- L12 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 2001:400638 CAPUTS
- DN 135:189734
- TI Structure-based 3D QSAR and design of novel acetylcholinesterase inhibitors
- AU Sippl, Wolfgang; Contreras, Jean-Marie; Parrot, Isabelle; Rival, Yveline M.; Wermuth, Camille G.
- CS Institut fur Pharmazeutische Chemie, Heinrich-Heine-Universitat Dusseldorf, Dusseldorf, D-40225, Germany
- SO Journal of Computer-Aided Molecular Design (2001), 15(5), 395-410 CODEN: JCADEQ; ISSN: 0920-654X
- PB Kluwer Academic Publishers
- DT Journal
- LA English
- AB The paper describes the construction, validation and application of a structure-based 3D QSAR model of novel acetylcholinesterase (AChE) inhibitors. Initial use was made of four x-ray structures of AChE complexed with small, non-specific inhibitors to create a model of the binding of recently developed aminopyridazine derivs. Combined automated and manual docking methods were applied to dock the co-crystd. inhibitors into the binding pocket. Validation of the modeling process was achieved by comparing the predicted enzyme-bound conformation with the known conformation in the x-ray structure. The successful prediction of the binding conformation of the known inhibitors gave confidence that we could use our model to evaluate the binding conformation of the aminopyridazine compds. The alignment of 42 aminopyridazine compds. derived by the docking procedure was taken as the basis for a 3D QSAR anal. applying the GRID/GOLPE method. A model of high quality was obtained using the GRID water probe, as confirmed by the cross-validation method (qLOO2 = 0.937, qL50%O2 = 0.910). The validated model, together with the information obtained from the calcd. AChE-inhibitor complexes, were considered for the design of novel compds. Seven designed inhibitors which were synthesized and tested were shown to be highly active. After performing our modeling study the x-ray structure of AChE complexed with donepezil, an inhibitor structurally related to the developed aminopyridazines, has been made available. The good agreement found between the predicted kinding conformation of the aminopyridazines and the one obsd. for donepezil in the crystal structure further supports our developed model.

IT 221196-74-3 221196-75-4 221196-76-5 242802-89-7 357173-49-0 357173-50-3 357173-51-4 357173-52-5 357173-53-6

357173-56-9 357173-57-0 357173-58-1

357173-59-2 357173-60-5 357173-61-6

357173-62-7 357173-63-8 357173-65-0

357173-66-1 357173-69-4 357173-78-5

357173-79-6 357173-80-9 357173-81-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(structure-based 3D QSAR and design of novel acetylcholinesterase inhibitors)

RN 221196-74-3 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 221196-75-4 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[[1-(phenylmethyl)-4-piperidinyl]methyl]-(9CI) (CA INDEX NAME)

RN 221196-76-5 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 242802-89-7 CAPLUS

CN 3-Pyridazinamine, 6-chloro-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$CH_2-CH_2-NH$$

RN 357173-49-0 CAPLUS

CN 3-Pyridazinamine, 4-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \hline & \text{NH--CH}_2\text{---CH}_2 \\ \hline & \text{Me} \end{array}$$

RN 357173-50-3 CAPLUS

CN 3-Pyridazinamine, 4-(1-methylethyl)-5-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-51-4 CAPLUS

CN 3-Pyridazinamine, 5-methyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \hline & \text{N} & \text{NH--CH}_2\text{---CH}_2 \\ \hline & \text{Me} & \end{array}$$

RN 357173-52-5 CAPLUS

CN 3-Pyridazinamine, 5-ethyl-6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--}\text{Ph} \\ \hline & \text{NH--}\text{CH}_2\text{--}\text{CH}_2 \\ \end{array}$$

RN 357173-53-6 CAPLUS

CN 3-Pyridazinamine, 6-phenyl-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-5-propyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \text{N} & \text{CH}_2\text{--Ph} \\ \\ \text{N-Pr} & \text{NH--CH}_2\text{---CH}_2 \\ \end{array}$$

RN 357173-56-9 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$CH_2-CH_2-NH$$

RN 357173-57-0 CAPLUS

CN 3-Pyridazinamine, 6-methoxy-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-} & \text{CH}_2 - \text{CH}_2 - \text{NH} & & \\ & & & \\ & & & \\ \text{OMe} & & \\ \end{array}$$

RN 357173-58-1 CAPLUS

CN 3-Pyridazinamine, 6-(2-methylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 N
 Me

RN 357173-59-2 CAPLUS

CN 3-Pyridazinamine, 6-(2-ethylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-60-5 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

RN 357173-61-6 CAPLUS

CN 3-Pyridazinamine, 6-(2-methoxyphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-62-7 CAPLUS

CN 3-Pyridazinamine, 6-(2-chlorophenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-63-8 CAPLUS

CN 3-Pyridazinamine, 6-[3,5-bis(trifluoromethyl)phenyl]-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-65-0 CAPLUS

CN Benzenethiol, 2-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]- (9CI) (CA INDEX NAME)

RN 357173-66-1 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(3-pyridinyl)- (9CI) (CA INDEX NAME)

RN 357173-69-4 CAPLUS

CN 4-Piperidineacetamide, 1-(phenylmethyl)-N-(6-phenyl-3-pyridazinyl)- (9CI) (CA INDEX NAME)

$$CH_2$$
 CH_2
 CH_2
 N
 N
 N
 N
 N
 N
 N
 N
 N

RN 357173-78-5 CAPLUS

CN 3-Pyridazinamine, 6-(2-naphthalenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

RN 357173-79-6 CAPLUS

CN Acetamide, N-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

RN 357173-80-9 CAPLUS

CN Ethanone, 1-[3-[6-[[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]amino]-3-pyridazinyl]phenyl]- (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 AC

RN 357173-81-0 CAPLUS

CN 3-Pyridazinamine, 6-(1,3-benzodioxol-5-yl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2 & & & \\ \end{array}$$

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 32 OF 54 CAPLUS COPYRIGHT 2003 ACS
L12
     1997:457074 CAPLUS
ΑN
DN
     127:81461
     Preparation of substituted 2-anilinopyrimidines as protein kinase
ΤI
TN
     Davis, Peter David; Moffat, David Festus Charles; Davis, Jeremy Martin;
     Hutchings, Martin Clive
     Celltech Therapeutics Limited, UK; Davis, Peter David; Moffat, David
PA
     Festus Charles; Davis, Jeremy Martin; Hutchings, Martin Clive
SO
     PCT Int. Appl., 83 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                        APPLICATION NO. DATE
                           -----
                                          _____
                                     WO 1996-GB2854 19961120
                     A1 19970529
     WO 9719065
PΙ
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
            AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
            MR, NE, SN, TD, TG
                                          US 1996-753041
     US 5958935
                            19990928
                                                            19961119
                      Α
     AU 9676314
                            19970611
                                          AU 1996-76314
                                                            19961120
                      A1
     EP 862560
                            19980909
                                          EP 1996-939171
                                                           19961120
                      A1
     EP 862560
                      B1
                           20030402
        R: CH, DE, ES, FR, GB, IT, LI
                                          US 1999-249760
     US 6235746
                     В1
                           20010522
                                                           19990216
PRAI GB 1995-23675
                            19951120
                      Α
     US 1996-753041
                           19961119
                      A3
     WO 1996-GB2854
                           19961120
                      W
    MARPAT 127:81461
OS
     The title compds. [I; R1 = H, halo, (un)substituted alkyl, etc : R2, R3 = 1
AB
     (un) substituted alkyl, alkenyl, alkynyl; R4 = H, alkyl; R5 = H,
     (un) substituted alkyl, alkenyl, alkynyl; R6 = H, halo, (un) substituted
     NH2, etc.; X = a direct bond, a linker atom, group; R7 = (un)substituted
     aliph., cycloaliph., heteroaliph., heterocycloaliph., arom. or heteroarom.
     group], selective protein kinase inhibitors, particularly the kinases
     p56lck, p59fyn, ZAP-70 and protein kinase C, and useful in the prophylaxis
     and treatment of immune diseases, hyperproliferative disorders and other
     diseases in which inappropriate protein kinase action is believed to have
     a role, were prepd. Thus, treatment of 4-[3-(3-phthalimidopropoxy)phenyl]-
     N-(3,4,5-trimethoxyphenyl)-2-pyrimidineamine with N2H4.H2O in EtOH
     afforded I.2HCl [R1 = MeO; R2, R3 = Me; R4-R6 = H; R7 = H2N(CH2)3; X = O]
     which showed IC50 of 22 nM in the protein kinase assay.
IT
     191728-51-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of substituted 2-anilinopyrimidines as protein kinase
        inhibitors)
RN
     191728-51-5 CAPLUS
     2,4-Pyrimidinediamine, N4-[1-(phenylmethyl)-4-piperidinyl]-N2-(3,4,5-
CN
```

trimethoxyphenyl) - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph-CH}_2 & \text{OMe} \\ \hline \\ \text{NH} & \text{NH} & \text{OMe} \\ \end{array}$$

IT 191729-07-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of substituted 2-anilinopyrimidines as protein kinase inhibitors)

RN 191729-07-4 CAPLUS

CN 4-Pyrimidinamine, 2-chloro-N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2 & & & \\ \end{array}$$

```
L12 ANSWER 30 OF 54 CAPLUS COPYRIGHT 2003 ACS
AN
     1997:776084 CAPLUS
DN
     128:34778
     Preparation of 2,4-diaminopyrimidines as dopamine D4 antagonists
ΤI
IN
     Bosmans, Jean Paul Rene Marie Andre; Love, Christopher John; Van Lommen,
     Guy Rosalia Eugene
PA
     Belq.
SO
     PCT Int. Appl., 31 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                     KIND
                           DATE
                                          APPLICATION NO.
                            -----
                                           _____
PΙ
     WO 9743279
                     A1
                           19971120
                                         WO 1997-EP2506
                                                            19970502
        W: AL, AM, AU, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP,
             KG, KR, LC, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, SG,
             SI, TR, TT, UA, US, UZ, VN, AZ, BY
         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
            ML, MR, NE, SN, TD, TG
     AU 9729561
                            19971205
                                           AU 1997-29561
                                                            19970502
                      A1
     AU 708344
                      В2
                            19990805
                                           EP 1997-923914
                                                            19970502
     EP 912552
                      Α1
                            19990506
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     CN 1218466
                            19990602
                                           CN 1997-194516
                                                            19970502
                      Α
     JP 2000512623
                       Т2
                            20000926
                                           JP 1997-540536
                                                            19970502
                      В6
                            20011212
                                           CZ 1998-3627
                                                            19970502
     CZ 289250
     ZA 9704050
                      Α
                            19981109
                                           ZA 1997-4050
                                                            19970509
     KR 2000005228
                      Α
                            20000125
                                           KR 1998-7915
                                                            19981002
     KR 2000005228
                      Α
                           20000125
                                           KR 1998-707915
                                                            19981002
    NO 9805228
                           19990111
                                           NO 1998-5228
                                                            19981109
                      Α
    US 6159982
                                           US 1998-180364
                      Α
                            20001212
                                                            19981109
                                           US 2000-667458
     US 6395742
                           20020528
                                                            20000922
                      В1
                                                                          • 1
PRAI EP 1996-201283
                      Α
                            19960510
                            19970502
     WO 1997-EP2506
                      W
     US 1998-180364
                            19981109
                      Α3
os
     MARPAT 128:34778
     Title compds. [I; R = ZR5; R1 = H or alkyl; R2,R3 = H or (cyclo)alkyl;
AΒ
     NR2R3 = pyrrolidino, piperidino, perhydroazepino; R4 = H or halo; R5 =
     aryl(oxy), diarylmethyl, heteroaryl; Z = alk(en)ylene] were prepd. Thus,
     Et 4-methylamino-1-piperidinecarboxylate was condensed with
     2-chloro-4-dimethylaminopyrimidine and the product deprotected to give I
     (R1-R3 = Me, R4 = H) (II; R = H) which was N-alkylated by
     C1CH2CH2C6H4(OMe)-3 to give II [R = CH2CH2C6H4(OMe)-3]. Data for biol.
     activity of I were given.
ΙT
     199667-15-7P 199667-34-0P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of 2,4-diaminopyrimidines as dopamine D4 antagonists)
RN
     199667-15-7 CAPLUS
     2,4-Pyrimidinediamine, N4,N4-dimethyl-N2-[1-(2-phenylethyl)-4-piperidinyl]-
```

(9CI) (CA INDEX NAME)

RN 199667-34-0 CAPLUS

CN 2,4-Pyrimidinediamine, N2-[1-[(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]-4-piperidinyl]-N4,N4-dimethyl- (9CI) (CA INDEX NAME)

L12 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2003 ACS

```
1999:659665 CAPLUS
ΑN
DN
     131:257581
     Preparation of piperidinylaminopyrimidines and related compounds as
ΤT
     pesticides and fungicides.
IN
     Schaper, Wolfgang; Braun, Ralf; Jakobi, Harald; Krautstrunk, Gerhard;
    Maerkl, Martin; Ort, Oswald; Kern, Manfred; Sanft, Ulrich; Bonin, Werner
    Hoechst Schering AgrEvo G.m.b.H., Germany
PA
     Ger. Offen., 28 pp.
SO
     CODEN: GWXXBX
DT
     Patent
LА
     German
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                      APPLICATION NO. DATE
                            _____
                                      DE 1998-19815026 19900323
WO 1999-EP1944 19990323
    DE 19815026
                 A1 19991007
A1 19991014
PΙ
    WO 9951589
         W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD,
             GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT,
             LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                      A1 19991025
                                         AU 1999-35207
                                                             19990323
    AU 9935207
    BR 9909386
                       Α
                            20001205
                                           BR 1999-9386
                                                             19990323
    EP 1068197
                       A1
                            20010117
                                           EP 1999-916871
                                                             19990323
         R: DE, FR, GB, IT
     JP 2002510680
                       T2
                            20020409
                                         JP 2000-542310
                                                             19990323
    US 6300333
                       B1
                            20011009
                                           US 1999-285199
                                                            19990401
PRAI DE 1998-19815026 A
                            19980403
    WO 1999-EP1944
                       W
                            19990323
    MARPAT 131:257581
OS
    Title compds. [I; R1 = H, halo, alkyl, alkoxy, cycloalkyl; R2, R3 = H,
    alkyı, alkenyl, alkynyl, alkoxý, halo, OH, cyano NO2, thlocyano, etc.;
    R2R3 = atoms to form a (substituted) 5-6 membered ring; P_0 = CH, N; N = NH_{\rm c}^{\rm s}.
    0, 3, SO, SO2; Y, Z = O, S, imino; R4, R41 = H, alkyl, haloalkyl, halo,
     alkoxy; R5 = alkyl, alkenyl, alkynyl, (substituted) aryl, heterocyclyl,
     etc.; m, n = 1-5; m+n.ltoreq.6; Q = (CH2)n; Q1 = (CH2)m], were prepd.
    Thus, 4,5-dichloro-6-ethylpyrimidine, 1-tert-butoxycarbonyl-4-
     aminopiperidine, and Et3N were heated 8 h at 80-90.degree. to give 63.6%
     4-(N-tert-butoxycarbonylpiperidin-1-ylamino)-5-chloro-6-ethylpyrimidine.
    Tested I at 300 ppm gave 90-100% kill of Tetranychus urticae.
IT
     245061-71-6P 245061-73-8P 245061-76-1P
     245061-77-2P 245061-78-3P 245061-79-4P
     245061-80-7P 245061-81-8P 245061-82-9P
     245061-86-3P 245061-87-4P 245061-88-5P
     245061-89-6P 245061-90-9P 245061-91-0P
     245061-96-5P 245061-97-6P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); BUU (Biological use,
     unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. of piperidinylaminopyrimidines and related compds. as
        pesticides and fungicides)
     245061-71-6 CAPLUS
RN
     1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-,
CN
     phenylmethyl ester (9CI) (CA INDEX NAME)
```

RN 245061-73-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, phenyl ester (9CI) (CA INDEX NAME)

RN 245061-76-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 4-fluorophenyl ester (9CI) (CA INDEX NAME)

RN 245061-77-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 4-methylphenyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 & O & Me \\ \hline \\ N & N & \\ \end{array}$$

RN 245061-78-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 4-methoxyphenyl ester (9CI) (CA INDEX NAME)

RN 245061-79-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 4-(methoxycarbonyl)phenyl ester (9CI) (CA INDEX NAME)

RN 245061-80-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 2,4-difluorophenyl ester (9CI) (CA INDEX NAME)

RN 245061-81-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 4-chloro-2-fluorophenyl ester (9CI) (CA INDEX NAME)

RN 245061-82-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-, 2-chloro-4-fluorophenyl ester (9CI) (CA INDEX NAME)

RN 245061-86-3 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

RN 245061-87-4 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 & & \\ N & C-NH \end{array}$$

RN 245061-88-5 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-[4-(1-methylethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 245061-89-6 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 245061-90-9 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-cyclohexyl- (9CI) (CA INDEX NAME)

RN 245061-91-0 CAPLUS

CN 1-Piperidinecarboxamide, 4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-N-methyl-N-phenyl- (9CI) (CA INDEX NAME)

RN 245061-96-5 CAPLUS

CN 4-Piperidinamine, N-(5-chloro-6-ethyl-4-pyrimidinyl)-1-(1-pyrrolidinylcarbonyl)- (9CI) (CA INDEX NAME)

RN 245061-97-6 CAPLUS
CN Morpholine, 4-[[4-[(5-chloro-6-ethyl-4-pyrimidinyl)amino]-1-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)

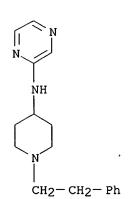
- L12 ANSWER 48 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1989:114793 CAPLUS
- DN 110:114793
- TI New 4-(heteroanilido)piperidines, structurally related to the pure opioidagonist fentanyl, with agonist and/or antagonist properties
- AU Bagley, Jerome R.; Wynn, Richard L.; Rudo, Frieda G.; Doorley, Brian M.; Spencer, H. Kenneth; Spaulding, Theodore
- CS BOC Tech. Cent., Anaquest, Murray Hill, NJ, 07974, USA
- SO Journal of Medicinal Chemistry (1989), 32(3), 663-71 CODEN: JMCMAR; ISSN: 0022-2623
- DT Journal
- LA English
- OS CASREACT 110:114793
- AB The prepn., analgesic and opioid agonist and/or antagonist properties of 39 title compds. I (R = heterocyclic, R1 = MeOCH2, 2-furyl, 3-furyl) are reported. Thus, N-phenethyl-4-piperidone condensed with 4-aminomorpholine to give the Schiff base, which was reduced with NaBH4 in MeOH to give (morpholinylamino)phenethylpiperidine II. Treating II with 2-furoyl chloride and Et3N in CHCl3 gave 24% I (R = 4-morpholinino, R1 = 2-furyl). In the mouse hot-plate test, I were weaker analgesics than fentanyl. Two types of antagonists were obsd. in morphine-treated rabbits: those (e.g., I, R = 5-methyl-2-pyridinyl, R1 = 2-furyl) that reversed both respiratory depression and analgesia and those (e.g., I; R = 2-pyrazinyl, R1 =2-furyl) that selectively reversed respiratory depression. Evaluation of in vitro binding affinities to rat brain opioid receptors was inconclusive for a common locus of action for the agonist as well as the antagonist component. Further pharmacol. evaluation of I (R = 2-pyrazinyl, R1 = 2-furyl) in the rat showed it to be a potent analgesic (ED50 = $0.07 \, \mathrm{mg/kg}$, tail-flick test) with little cardiovascular and respiratory depression when compared to fentanyl.
- IT 117523-88-3P 118142-52-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and amidation of, with furoyl chlorides)

RN 117523-88-3 CAPLUS

CN Pyrazinamine, N-[1-(2-phenylethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME),







. . .

RN 118142-52-2 CAPLUS

CN 4-Pyrimidinamine, 2-chloro-N-[1-(2-phenylethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

IT 79278-72-1P 118142-53-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and amination of, with methoxyacetyl and furoyl chlorides)

RN 79278-72-1 CAPLUS

CN 2-Pyrimidinamine, N-[1-(2-phenylethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

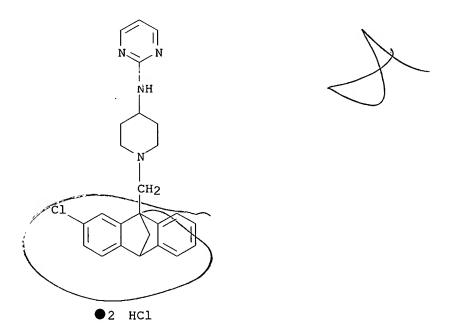
RN 118142-53-3 CAPLUS

CN 4-Pyrimidinamine, 6-chloro-N-[1-(2-phenylethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

- L12 ANSWER 39 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1993:671004 CAPLUS
- DN 119:271004
- TI Preparation of N-[1-(9,10-methano-9-anthracenylmethyl)-4-piperidinyl]alkanamides and analogs as dopamine D2 receptor antagonists
- IN Ohnmacht, Cyrus John; Yee, Ying Kwong; Trainor, Diane Amy; Lewis, Joseph James
- PA Imperial Chemical Industries PLC, UK
- SO Eur. Pat. Appl., 75 pp. CODEN: EPXXDW
- DT Patent
- LA English
- FAN.CNT 1

274	PA	TENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI			A1		EP 1992-307355		
	ΕP	532178		19961016			
		R: AT, BE,	CH, DE	, DK, ES, FR,	GB, GR, IT, LI, LU	, MC, NL, PT, SE	
	US	5266570	Α	19931130	US 1992-926792	19920806	
	AT 144254		E	19961115	AT 1992-307355	19920811	
	CA	2076146	AA	19930216	CA 1992-2076146	19920814	
	NO	9203200	Α	19930216	NO 1992-3200	19920814	
	AU	9221015	A1	19930218	AU 1992-21015	19920814	
	AU	645707	B2	19940120			
	zA	9206146	Α	19930428	ZA 1992-6146	19920814	
	JP	05239026	A2	19930917	JP 1992-217000	19920814	
	JP	3269574	B2	20020325			
	HU	66515	A2	19941228	HU 1992-2642	19920814	
	US	5455246	Α	19951003	US 1993-121117	19930913	
PRAI	GB	1991-17640	Α	19910815			
	GB	1992-7966	Α	19920410			
	US	1992-926792	A3	19920806			

- OS MARPAT 119:271004
- AB Title compds. [I; R = COR2; R2 = (cyclo)alkyl, Ph, heterocyclyl, alkoxyalkyl, alkylamino, alkoxy, etc.: X,Y = H, halo, alkoxy] were prepd. Thus, (9S,10S)-2-chloro-9,10-dihydro-9,10-methano-9-anthracenecarboxylic acid was condensed with 4-[(tert-butoxycarbonyl)amino]piperidine and the product converted in 2 steps to (9S,10S)-I (X = Cl, Y = H) (II; R = H) which was condensed with EtOCH2CO2H to give II (R = COCH2OEt). The latter had min. ED of 2.5 mg/kg orally for, e.g., decrease in apomorphine-induced climbing by mice.
- IT 76167-42-5P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (prepn. and reaction of, in prepn. of dopamine D2 receptor antagonist)
- RN 76167-42-5 CAPLUS
- CN 2-Pyrimidinamine, N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 149605-08-3 CAPLUS
CN 2-Pyrimidinamine, N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

RN 149605-09-4 CAPLUS

CN 2,4-Pyrimidinediamine, 5-fluoro-N2-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]-, trihydrochloride (9CI) (CA INDEX NAME)

RN 149605-10-7 CAPLUS

CN 2-Pyrimidinamine, 5-iodo-N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

RN 149605-11-8 CAPLUS

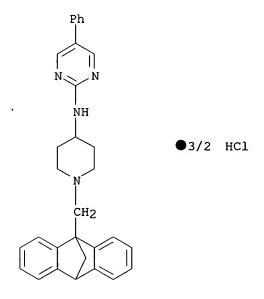
CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-5-phenyl-, dihydrochloride (9CI) (CA INDEX NAME)

RN 149605-12-9 CAPLUS

CN 2,4-Pyrimidinediamine, N2-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-y1)methyl]-4-piperidinyl]-5-fluoro-, trihydrochloride (9CI) (CA INDEX NAME)

RN 149605-13-0 CAPLUS

CN 2-Pyrimidinamine, N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]-5-phenyl-, hydrochloride (2:3) (9CI) (CA INDEX NAME)



RN 149605-14-1 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-5-iodo-, monohydrochloride (9CI) (CA INDEX NAME)

RN 149605-15-2 CAPLUS

CN 4(1H)-Pyrimidinone, 2-[[1-[(2-chloro-9,10-methanoanthracen-9(10H)-y1)methyl]-4-piperidinyl]amino]-, dihydrochloride (9CI) (CA INDEX NAME)

RN 149605-16-3 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-5-fluoro-, hydrochloride (4:3) (9CI) (CA INDEX NAME)

RN 149605-17-4 CAPLUS

CN 2,4-Pyrimidinediamine, N2-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]-5-nitro-, hydrochloride (2:3) (9CI) (CA INDEX NAME)

RN 149605-18-5 CAPLUS

CN 2,4,5-Pyrimidinetriamine, N2-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 149605-21-0 CAPLUS

CN 2-Pyrimidinamine, N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]-4,6-dimethyl-, trihydrochloride (9CI) (CA INDEX NAME)

RN 149605-22-1 CAPLUS

CN 2-Pyrimidinamine, 4,6-dichloro-N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 149605-23-2 CAPLUS

CN 4-Pyrimidinamine, 2,6-dichloro-N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 149605-66-3 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 149605-67-4 CAPLUS

CN 2-Pyrimidinamine, N-[1-(9,10-methanoanthracen-9(10H)-ylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

RN 149605-68-5 CAPLUS

CN 4(1H)-Pyrimidinone, 2-[[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]amino]- (9CI) (CA INDEX NAME)

RN 149632-79-1 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-4-methoxy- (9CI) (CA INDEX NAME)

RN 149714-51-2 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-, hydrochloride (2:3), (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

●3/2 HCl

RN 149714-52-3 CAPLUS

CN 2-Pyrimidinamine, N-[1-[(2-chloro-9,10-methanoanthracen-9(10H)-yl)methyl]-4-piperidinyl]-, dihydrochloride, (9R)- (9CI) (CA INDEX NAME)

●2 HCl

- L12 ANSWER 47 OF 54 CAPLUS COPYRIGHT 2003 ACS
- AN 1990:552269 CAPLUS
- DN 113:152269
- TI Preparation of N-heterocyclic N-(4-piperidinyl) amides and their pharmaceutical compositions as analgesics and narcotic antagonists
- IN Bagley, Jerome R.; Spencer, H. Kenneth
- PA BOC Inc., USA
- SO U.S., 16 pp. Cont.-in-part of U.S. 4,791,112. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 2

rau.	PATENT NO.		KIND	DATE	AP	PLICATION NO.	DATE
ΡI	115	4912109	 А	19900327	115	1988-282092	19881209
		4791112	A	19881213		1987-9857	19870202
		8800493	A	19880803		1988-493	19880201
		8800452	A	19880803		1988-452	19880201
		90980	В	19940114	LI	1500 452	13000201
		90980	C	19940425			
		8811142	A1	19880804	זות	1988-11142	19880201
		598905	B2	19900705	Au	1900-11142	19000201
		2063030	T3	19950101	FC	1988-300829	19880201
		8800443	A	19880803		1988-443	19880202
		169070	В	19920127	. NO	1900-443	19000202
		169070	C	19920506			
		88100563	A	19880817	CM	1988-100563	19880202
		63264460	A A2	19881101		1988-22650	19880202
		06062565	B4	19940817	OF	1900-22030	19000202
		4900738	A A	19940817	IIC	1988-255184	19881007
		4916142		19900213		1989-362119	
			A				19890606
DDAT		4954506	A	19900904	US	1990-468381	19900122
PRAI		1987-9857		19870202			
		1987-9587		19870202			
•		1988-282092		19881209		•	-
00		1989-362119	6	19890606			

OS MARPAT 113:152269

AB Over 40 title amides I [R = (un)substituted unsatd. 5- or 6-membered N heterocyclyl, esp. pyridinyl, pyrimidinyl, pyrazinyl; R1 = (un)substituted 5-membered heterocyclyl (esp. furyl, thienyl, pyrrolyl), heterocyclylalkyl, alkyl, cycloalkyl, alkoxyalkyl; R2 = 5- or 6-membered cyclic system bound to alkyl, esp. phenylalkyl, thienylalkyl, thienylalkyl, thienylhydroxyalkyl, pyrazolylalkyl, etc.; R3 = H, Me] were prepd. and tested. For example, 1-benzyl-4-piperidinamine was condensed with chloropyrazine and then 2-furoyl chloride to give N-(2-pyrazinyl)-N-(1-benzyl-4-piperidinyl)-2-furanamide, which underwent debenzylation with ClCO2CHClMe and N-alkylation with 2-(2-chloroethyl)thiophene to give I [R = 2-pyrazinyl, R1 = 2-furyl, R2 = 2-(2-thienyl)ethyl, R3 = H] (II). The ED50 of II for analgesia in mice in the hot-plate test was <1 mg/kg i.v.; it reversed both analgesic and respiratory effects of morphine in rabbits. I (R3 = Me) typically showed strongest analgesic activity.

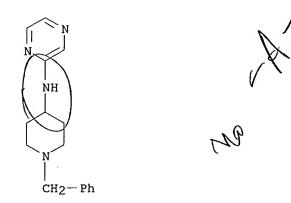
. 4

IT 129481-20-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of analgesics and narcotic antagonists)

- RN 129481-20-5 CAPLUS
- CN Pyrazinamine, N-[1-(phenylmethyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



10/079,452 (species - Ex17)

L12 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2003 ACS

AN 1999:447545 CAPLUS

DN 131:214247

TI Synthesis of substituted 3-amino-6-arylpyridazines via Suzuki reaction

AU Parrot, Isabelle; Rival, Yveline; Wermuth, Camille G.

CS Lab. Pharmacochimie Communication Cellulaire, Univ. Louis Pasteur, Illkirch, F-67401, Fr.

SO Synthesis (1999), (7), 1163-1168 CODEN: SYNTBF; ISSN: 0039-7881

PB Georg Thieme Verlag

DT Journal

LA English

OS CASREACT 131:214247

AB Starting from the com. available 3,6-dichloropyridazine, N3-substituted 3-amino-6-arylpyridazines were prepd. in good yields and under mild conditions by two simple steps, nucleophilic substitution and a Pd-catalyzed Suzuki coupling.

IT 242802-89-7P 242802-90-0P 242802-91-1P 242802-92-2P 242802-93-3P 242802-94-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of arylpyridazinamines via Suzuki reaction)

RN 242802-89-7 CAPLUS

CN 3-Pyridazinamine, 6-chloro-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-} & \text{CH}_2 \\ \end{array} \\ \begin{array}{c} \text{CH}_2 \\ \end{array} \\ \begin{array}{c} \text{CH}_2 \\ \end{array} \\ \begin{array}{c} \text{N} \\ \text{Cl} \\ \end{array}$$

RN 242802-90-0 CAPLUS

CN 5-Pyridazinamine, 6-(2-methylphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 Me

●2 HCl

RN 242802-91-1 CAPLUS

CN 3-Pyridazinamine, 6-(2-methoxyphenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2$$
 CH_2-CH_2-NH
 N
 MeO

●2 HC1

RN 242802-92-2 CAPLUS

CN 3-Pyridazinamine, N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-6-(2,4,6-trimethylphenyl)-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RN 242802-93-3 CAPLUS'

CN 3 Pyridazinamine, 6-(2-naphthalenyl)-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

•2 HCl

RN 242802-94-4 CAPLUS

CN 3-Pyridazinamine, 6-[3,5-bis(trifluoromethyl)phenyl]-N-[2-[1-(phenylmethyl)-4-piperidinyl]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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chain bonds :
   3-7 7-8 7-9 9-10 10-11 12-13 13-14
ring bonds :
   1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
   3-7 7-8 7-9 10-11 13-14
exact bonds :
   1-2 1-6 2-3 3-4 4-5 5-6 9-10 12-13
isolated ring systems :
   containing 1 :
Match level :
   1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
   11:Atom 12:CLASS 13:CLASS 14:Atom 15:CLASS
Generic attributes :
   11:
   Saturation
                        : Unsaturated
   14:
   Saturation
                        : Unsaturated
Element Count :
   Node 14: Limited
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       S,S0-1
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chain nodes :

ring nodes :

0,00-1

7 8 9 10 11 12 13 14

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Uploading 10079452 (claim 40 and 44).str

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L1 HAS NO ANSWERS

L1 STR

Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss sam

SAMPLE SEARCH INITIATED 16:56:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 3576 TO ITERATE

28.0% PROCESSED 1000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 67935 TO 75105

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 sss ful

FULL SEARCH INITIATED 16:56:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 71740 TO ITERATE

100.0% PROCESSED 71740 ITERATIONS 118 ANSWERS

SEARCH TIME: 00.00.02

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=> s 13

L4 8 L3

=> d 14 1-8 bib, ab, hitstr

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ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2003:221651 CAPLUS
AN
     138:238196
DN
     Preparation of biarylmethylaminopurines as potent cyclin/CDK inhibitors
ΤI
     and antiproliferative agents.
IN
     Trova, Michael Peter
PA
     Albany Molecular Research, Inc., USA
     PCT Int. Appl., 275 pp.
SO
     CODEN: PIXXD2
                                               not pid
DT
     Patent
     English
LА
FAN.CNT 1
                             DATE
                                             APPLICATION NO.
     PATENT NO.
                       KIND
                                                               DATE
PΙ
     WO 2003022805
                        A2
                             20030320
                                             WO 2002-US28730 20020909
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, IQ, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
                             20030515
                                             US 2002-237530
                                                               20020906
     US 2003092909
                        A1
                             (20010911
PRAI UŞ 2001-318569P
                        Ρ
     MARPAT 138:238196
os
     Title compds. [I; R1 = H, alkyl, alkenyl, cycloalkyl, CH2CF3, CH2CH2CF3,
AB
     CH(CF3)2; R2 = (substituted) Ph, naphthyl, pyridyl, pyrimidyl, thienyl,
     furyl, pyrrolyl, quinolinyl, isoquinolinyl, etc.; R3 = H, alkyl, alkenyl,
     (substituted) Ph, phenylalkyl, etc.; R4 = H, alkyl; R3R4 = atoms to form a
     5-8 membered ring; R5 = heterocycle; A = CH2, (CH2)2, (CH2)3, OCH2CH2,
     CHCH3; Y = H, OR1, NHR1, NHCOR3, NHSO2R3, etc.; Q = (CH2)n; n = 0-3; V =
     NH, O, S, CH2], were prepd. Thus, title compd. II was prepd. and
     inhibited growth of BT-579, MCF7, and numerous other transformed cell
     lines with GI50 < 0.01 .mu.M.
IT
     441055-93-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of biarylmethylaminopurines as potent cyclin/CDK inhibitors and
        antiproliferative agents)
     441055-93-2 CAPLUS
RN
CN
     1-Piperidinecarboxylic acid, 4-[[[6-[([1,1'-biphenyl]-4-ylmethyl)amino]-9-
```

(1-methylethyl)-9H-purin-2-yl]amino]methyl]-, phenylmethyl ester (9CI)

(CA INDEX NAME)

.

```
ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
AN
     2003:221467 CAPLUS
DN
     138:255243
     Preparation of biarylmethylaminopurines as potent cyclin/CDK inhibitors
ΤI
     and antiproliferative agents
IN
     Trova, Michael Peter
PA
     Albany Molecular Research, Inc., USA
SO
     PCT Int. Appl., 266 pp.
     CODEN: PIXXD2
DT
     Patent
     English
T.A
FAN.CNT 1
     PATENT NO.
                       KIND
                             DATE
                                             APPLICATION NO.
                                                               DATE
                             20030320
     WO 2003022219
PΙ
                        A2
                                             WO 2002-US28731
                                                               20020909
             AE, AG, AL, AM, AT, AU;
                                      AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, H, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                       A1 /
                             20030508
     US 2003087906
                                             US 2001-950543
                                                               20010911
PRAI US 2001-950543
                        Α
                             2001091
os
     MARPAT 138:255243
     The compds. I of the present invention are 2,6,9-trisubstituted purine
AΒ
     derivs. which are inhibitors of cyclin/CDK complexes. Title compds. I [R1
= H, alkyl, alkenyl, cycloalkyl, CH2CF3, CH2CH2CF3, CH(CF3)2; R2 =
     (substituted) Ph, naphthyl, pyridyl, pyrimidyl, thienyl, furyl, pyrrolyl,
     quinolinyl, isoquinolinyl, etc.; R3 = H, alkyl, alkenyl, (substituted) Ph,
     phenylalkyl, etc.; R4 = H, alkyl; R3R4 = form a 5-8 membered ring; <math>R5 =
     heterocycle; A = CH2, (CH2)2, (CH2)3, OCH2CH2, CHCH3; Y = H, OR1, NHR1,
     NHCOR3, NHSO2R3, etc.; Q = (CH2)n; n = 0-3; V = NH, O, S, CH2], were
     prepd. Thus, title compd. II was prepd. and inhibited growth of BT-579,
     MCF7, and numerous other transformed cell lines with GI50 < 0.01 .mu.M.
     The compds. of the current invention also are potent inhibitors of human
     cellular proliferation. As such, the compds. of the present invention
     constitute pharmaceutical compns. with a pharmaceutically acceptable
     carrier. Such compds. are useful in treating a disorder mediated by
     elevated levels of cell proliferation in a mammal compared to a healthy
     mammal by administering to such mammal an effective amt. of the compd.
IT
     441055-93-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of biarylmethylaminopurines as potent cyclin/CDK inhibitors and
        antiproliferative agents)
RN
     441055-93-2 CAPLUS
CN
     1-Piperidinecarboxylic acid, 4-{[[6-[([1,1'-biphenyl]-4-ylmethyl)amino]-9-
     (1-methylethyl)-9H-purin-2-yl]amino]methyl]-, phenylmethyl ester (9CI)
```

(CA INDEX NAME)

$$\begin{array}{c} & & \text{Ph} \\ & & \text{CH}_2 \\ & & \text{NH} \\ & & \text{NH}$$

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ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2002:964146 CAPLUS
AN
     138:39187
DN
     Preparation of piperidinecarboxylates and related compounds as NMDA NR2B
ΤI
     receptor antagonists for the treatment or prevention of migraine.
IN
     Allen, Christopher; Koblan, Ken S.; Sleeth, Timothy
     Merck & Co., Inc., USA
PA
SO
     PCT Int. Appl., 185 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LА
FAN.CNT 1
     PATENT NO.
                        KIND
                                              APPLICATION NO.
                                                                 DATE
PI
     WO 2002100352
                        A2
                                              WO 2002-US21069 20020607
     WO 2002100352
                        A3
                              20030327
              AE, AG, AL, AM, AT, AV, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
              LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
              PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
              UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 2001-297672P P 20010612
PRAI US 2001-297672P
     A method for treating of preventing migraines comprises administration of
     an NR2B receptor antagonist (no data). The invention also encompasses the
     combination of an NR2B antagonist with a cyclooxygenase-2 selective
     inhibitor, a calcitonin gene-related peptide receptor (CGRP) ligand, a
     leukotriene receptor antagonist, or a 5HT1B/1D agonist for the treatment
     or prevention of migraines. Thus, 4-hydroxybenzoic acid,
     1-hydroxybenzotriazole hydrate, benzyl 4-(aminomethyl)piperidine-1-
     carboxylate (prepn. given), and Et3N in DMF were treated with
     1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride and the mixt.
     allowed to stir at room temp. for 18 h to give 4-[(4-
     hydroxybenzoylamino)methyl]piperidine-1-carboxylic acid benzyl ester.
IT
     455265-37-9P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
         (prepn. of piperidinecarboxylates and related compds. as NR2B receptor
        antagonists for the treatment or prevention of migraine)
RN
     455265-37-9 CAPLUS
CN
     1-Piperidinecarboxylic acid, 4-[[[2-(methylthio)-4-
     pyrimidinyl]amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX
     NAME)
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$$\begin{array}{c|c} & & & \\ &$$

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TΤ
     455265-19-7P, Benzyl 4-[(4-pyridinylamino)methyl]-1-
     piperidinecarboxylate 455265-20-0P, Benzyl 4-[[(3-
     pyridinyl)amino]methyl]-1-piperidinecarboxylate 455265-21-1P,
     Benzyl 4-[(3-isoxazolylamino)methyl]-1-piperidinecarboxylate
     455265-23-3P 455265-24-4P 455265-25-5P,
     4-[(3-Methylpyridin-4-ylamino)methyl]piperidine-1-carboxylic acid benzyl
     ester 455265-27-7P, Benzyl 4-[[(4-methyl-2-
     pyridinyl)amino]methyl]-1-piperidinecarboxylate 455265-28-8P,
     Benzyl 4-[(1,3,4-thiadiazol-2-ylamino)methyl]-1-piperidinecarboxylate
     455265-30-2P 455265-31-3P 455265-32-4P, Benzyl
     4-[[(2-pyridinyl)amino]methyl]-1-piperidinecarboxylate
     455265-33-5P, Benzyl 4-[[(4-ethyl-2-pyridinyl)amino]methyl]-1-
     piperidinecarboxylate 455265-34-6P, Benzyl 4-[[(1-oxido-4-
     pyridinyl)amino]methyl]-1-piperidinecarboxylate 455265-35-7P
     455265-36-8P 455265-38-0P 455265-39-1P
     455265-40-4P 455265-41-5P 455265-42-6P
     455265-44-8P 455265-45-9P 455265-46-0P
     455265-48-2P 455265-49-3P 455265-51-7P
     455265-52-8P 455265-54-0P 455265-55-1P
     455265-56-2P 455265-57-3P 455265-58-4P
     455265-59-5P 455265-60-8P 455265-61-9P
     455265-62-0P 455265-63-1P 455265-64-2P
     455265-66-4P 455265-67-5P 455265-68-6P
     455265-69-7P 455265-70-0P 455265-71-1P
     455265-73-3P 455265-74-4P 455265-75-5P
     455265-76-6P 455265-77-7P 455265-78-8P
     455265-79-9P 455265-80-2P 455265-81-3P
     455265-82-4P 455265-83-5P 455265-84-6P
     455265-85-7P 455265-87-9P 455265-88-0P
     455265-89-1P 455265-90-4P 455265-92-6P
     455265-94-8P 455265-95-9P 455265-96-0P
     455265-97-1P 455266-26-9P 455266-98-5P
     455267-73-9P 455267-78-4P 455267-93-3P
     455267-94-4P 455267-96-6P 455268-07-2P
     455290-06-9P, Benzyl 4-[[(5-methyl-2-pyridinyl)amino]methyl]-1-
     piperidinecarboxylate 455290-15-0P 478552-68-0P,
     Benzyl 4-[[(1-methyl-1H-imidazol-2-yl)amino]methyl]-1-
     piperidinecarboxylate 478552-69-1P, 4-(Quinolin-2-
     ylaminomethyl)piperidine-1-carboxylic acid benzyl ester
     478552-71-5P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (prepn. of piperidinecarboxylates and related compds. as NR2B receptor
        antagonists for the treatment or prevention of migraine)
RN
     455265-19-7 CAPLUS
     1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, phenylmethyl
CN
     ester (9CI) (CA INDEX NAME)
```

RN 455265-20-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-21-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-isoxazolylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-23-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-purin-6-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-24-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-25-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-27-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-methyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-28-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1,3,4-thiadiazol-2-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ N & \\ N & \\ & & \\ N & \\ \end{array}$$

RN 455265-30-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-31-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & \\ \hline \\ N & \\ NH-CH_2 \end{array} \qquad \begin{array}{c} O \\ \hline \\ N-C-O-CH_2 \end{array} \qquad \begin{array}{c} Me \\ \hline \end{array}$$

RN 455265-32-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CH_2-NH & \\ \hline \\ Ph-CH_2-O-C & \\ O & \\ \end{array}$$

RN 455265-33-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-ethyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ \parallel \\ C-O-CH_2-Ph \end{array}$$

RN 455265-34-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1-oxido-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$N$$

$$0$$

RN 455265-35-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & \\ & & \\ \end{array}$$

RN 455265-36-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-38-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-39-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(pyrazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-40-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-2-pyridinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & \\ \hline \\ N \\ \hline \\ N \\ \end{array}$$

$$N + CH_2 - C + O - CH_2 - F$$

RN 455265-41-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (2-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-42-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (2-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-44-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-45-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-46-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-thiazolylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-48-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-49-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-51-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,6-dihydro-6-oxo-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-52-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-2-pyridinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-54-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-55-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (4-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 455265-56-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-57-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-58-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-cyano-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
O \\
\parallel \\
C-O-CH_2-Ph
\end{array}$$

RN 455265-59-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & & & & \\ & & & & & & \\ \text{Ph-CH}_2-\text{O-C} & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ \end{array}$$

RN 455265-60-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-(hydroxymethyl)-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-61-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-, phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-62-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(2-pyridinylamino)methyl]-, phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-63-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(trifluoromethyl)-2-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & | \\
 & C - O - CH_2 - Ph \\
\hline
 & CF_3
\end{array}$$

RN 455265-64-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[(methylamino)methyl]-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} NH-CH_2 \\ \hline \\ CH_2-NHMe \\ \end{array}$$

RN 455265-66-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-67-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-, (4-ethylphenyl)methyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-68-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloro-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & C1 \\ \hline Ph-CH_2-O-C & & & & \\ \hline \\ O & & & \\ \end{array}$$

RN 455265-69-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3,4-dihydro-3-oxopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-70-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[(dimethylamino)methyl]-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & CH_2-NH & CH_2-NMe_2 \\ \hline Ph-CH_2-O-C & \\ & O \end{array}$$

RN 455265-71-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-73-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-74-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$N$$

$$N$$

$$Me$$

$$N$$

RN 455265-75-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
Me & & \\
N & C-O-CH_2
\end{array}$$

RN 455265-76-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-77-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-78-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-bromo-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-79-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-80-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{N} \\ \text{N} \\ \text{N} \end{array}$$

RN 455265-81-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$NH_2$$
 $C-O-CH_2-Ph$
 NH_2
 NH_2

RN 455265-82-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-83-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-84-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$0$$

$$F$$

$$N$$

$$N$$

$$N$$

RN 455265-85-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-cyclopropylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-87-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-pyrrolo[2,3-d]pyrimidin-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-88-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-hydroxy-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$HO$$

$$N$$

RN 455265-89-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ Ph-CH_2-O-C & & & & \\ 0 & & & & \\ \end{array}$$

RN 455265-90-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-92-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-imidazo[4,5-c]pyridin-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-94-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-95-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

RN 455265-96-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pteridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-97-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-benzimidazol-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-26-9 CAPLUS
CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-,
3-thienylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 455266-98-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C1 & & & \\
N & & C-O-CH_2
\end{array}$$

RN 455267-73-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 & O \\ N & C-O-CH_2-Ph \\ \hline \\ Me & \end{array}$$

RN 455267-78-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5,6-dichloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
N & NH-CH_2 \\
N & C-O-CH_2-Ph \\
C1 & O
\end{array}$$

RN 455267-93-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$C1$$

● HCl

RN 455267-94-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-hydroxy-4-[(4-pyridinylamino)methyl]-, phenylmethyl ester, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 455265-72-2 CMF C19 H23 N3 O3

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \hline \\ \text{Ph-CH}_2\text{-O-C} \\ \hline \\ \text{O} \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455267-96-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-fluoro-4-pyridinyl)amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455267-68-2 CMF C19 H22 F N3 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455268-07-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-fluorophenyl)methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455265-53-9 CMF C19 H22 F N3 O2

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455290-06-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & \\ & & \\ & & \\ & & \\ \end{array}$$

RN 455290-15-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
Me & & \\
N & C - C - CH_2
\end{array}$$

RN 478552-68-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1-methyl-1H-imidazol-2-yl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c}
\text{Me} \\
\mid \\
\text{N} \\
\text{NH-CH}_2
\end{array}$$

RN 478552-69-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-quinolinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 478552-71-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-2-pyridinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

IT 455267-76-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of piperidinecarboxylates and related compds. as NR2B receptor antagonists for the treatment or prevention of migraine)

RN 455267-76-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5-chloro-2,6-bis(methylthio)-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

SMe $C - O - CH_2 - Ph$ MeS $C - O - CH_2 - Ph$

IT 455265-50-6P 455267-07-9P, (cis)-3-Hydroxy-4-[(2,3,5,6-

tetrachloropyridin-4-ylamino)methyl]piperidine-1-carboxylic acid benzyl ester 455267-08-0P 455267-15-9P 478552-74-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of piperidinecarboxylates and related compds. as NR2B receptor antagonists for the treatment or prevention of migraine)

RN 455265-50-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-1H-purin-6-yl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455267-07-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[[(2,3,5,6-tetrachloro-4-pyridinyl)amino]methyl]-, phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455267-08-0 CAPLUS

CN 2-Pyridinecarboxylic acid, 4-[[[1-[(phenylmethoxy)carbonyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & \\ & & \\ \end{array}$$

RN 455267-15-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[[(2,4-dimethoxyphenyl)methyl]amino]-6-methyl-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 478552-74-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[(dimethylamino)carbonyl]-4-pyridinyl]amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 478535-42-1 . CMF C22 H28 N4 O3

$$\begin{array}{c|c} & & & & & & & \\ & & & & & \\ & & & & \\ \text{Ph-CH}_2-\text{O-C} & & & & \\ & & & & \\ & & & & \\ \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

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ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2002:676010 CAPLUS
AN
     137:216875
DN
     Preparation of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B
TI
     antagonists
     Claiborne, Christopher F.; Butcher, John W.; Claremon, David A.; Libby,
IN
     Brian E.; Liverton, Nigel J.; Munson, Peter M.; Nguyen, Kevin T.;
    Phillips, Brian; Thompson, Wayne; McCauley, John A. Merck & Co., Inc., USA
PA
                                                                       April. Pci
     PCT Int. Appl., 208 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
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FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
                           _____
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                    A1 20020906
     WO 2002068409
                                         WO 2002-US5226 20020220
PΙ
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                            20021107
                                         US 2002-79452
     US 2002165241
                      A1
                                                            20020220
PRAI US 2001-271100P
                            20010223
OS
     MARPAT 137:216875
     BQ1(X)ANHQ2 [Q1 = 5-7 membered N-contg. nonarom. ring, azabicyclooctyl; Q2
AB
     = 5-6 membered (substituted) heteroaryl ring; A = alkylene; B =
     Ar(CH2)0-302C, Ar(CH2)0-3S02, etc.; Ar = (substituted) aryl, heteroaryl; X
     = H, OH, F, alkyl, alkoxy, NH2, O], were prepd. Thus,
     1-[(benzyloxy)carbonyl]-4-piperidinecarboxylic acid, 4-aminopyridine, EDC,
     and HOAt were kept 4 h in DMF to give the amide, which was reduced with
     BH3.THF to give benzyl 4-{(4-pyridylamino)methyl]-1-piperidinecarboxylate.
     Title compds. showed IC50's of <50 .mu.M for inhibition of NR1A/2B NMDA
     receptor activation.
     455265-19-7P 455265-20-0P 455265-21-1P
     455265-22-2P 455265-23-3P 455265-24-4P
     455265-25-5P 455265-27-7P 455265-28-8P
     455265-29-9P 455265-30-2P 455265-31-3P
     455265-32-4P 455265-33-5P 455265-34-6P
     455265-35-7P 455265-36-8P 455265-37-9P
     455265-38-0P 455265-39-1P 455265-40-4P
     455265-41-5P 455265-42-6P 455265-44-8P
     455265-45-9P 455265-46-0P 455265-47-1P
     455265-48-2P 455265-49-3P 455265-50-6P
     455265-51-7P 455265-52-8P 455265-53-9P
     455265-54-0P 455265-55-1P 455265-56-2P
     455265-57-3P 455265-58-4P 455265-59-5P
     455265-60-8P 455265-61-9P 455265-62-0P
     455265-63-1P 455265-64-2P 455265-66-4P
     455265-67-5P 455265-68-6P 455265-69-7P
     455265-70-0P 455265-71-1P 455265-72-2P
     455265-73-3P 455265-74-4P 455265-75-5P
     455265-76-6P 455265-77-7P 455265-78-8P
     455265-79-9P 455265-80-2P 455265-81-3P
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455265-82-4P 455265-83-5P 455265-84-6P 455265-85-7P 455265-87-9P 455265-88-0P 455265-89-1P 455265-90-4P 455265-92-6P 455265-94-8P 455265-95-9P 455265-96-0P 455266-32-7P 455266-33-8P 455266-34-9P 455266-35-0P 455266-36-1P 455266-37-2P 455266-41-8P 455266-42-9P 455266-43-0P 455266-44-1P 455266-45-2P 455266-47-4P 455266-48-5P 455266-51-0P 455266-52-1P 455266-98-5P 455268-07-2P 455290-06-9P 455290-08-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compd.; prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidine
s as NMDA/NR2B antagonists)

RN 455265-19-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-20-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-21-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-isoxazolylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
0\\
\parallel\\ C-O-CH_2-Ph
\end{array}$$

RN 455265-22-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-imidazol-2-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-23-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-purin-6-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-24-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-25-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C \\ 0 \\ N \\ Me$$

RN 455265-27-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-methyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-28-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1,3,4-thiadiazol-2-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$N = NH - CH_2$$

$$N = NH - CH_2$$

$$N = NH - CH_2 - Ph$$

RN 455265-29-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-quinolinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-30-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-31-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-32-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C \\ 0 \\ N \\ N$$

RN 455265-33-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-ethyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-34-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1-oxido-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-35-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyrimidinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$N$$

$$N$$

RN 455265-36-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$N$$

$$N$$

$$Me$$

RN 455265-37-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-(methylthio)-4-pyrimidinyl]amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & \\ \text{MeS} & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

RN 455265-38-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$CH_2-NH$$

$$CH_2-NH$$

RN 455265-39-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(pyrazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-40-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-2-pyridinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O \\ \parallel & \\ NH-CH_2 & \\ N & \\ \end{array}$$

RN 455265-41-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (2-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & O & Me \\ \hline N & C-O-CH_2 \\ \hline \end{array}$$

RN 455265-42-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (2-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 455265-44-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-45-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(3-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-46-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-thiazolylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
0\\
C-O-CH_2-Ph\\
\end{array}$$

$$\begin{array}{c|c}
N\\
S\end{array}$$

$$\begin{array}{c|c}
N\\
S\end{array}$$

$$\begin{array}{c|c}
N\\
S\end{array}$$

RN 455265-47-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloro-2-pyridinyl)amino]methylj-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-48-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-49-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-50-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-1H-purin-6-yl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-51-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(1,6-dihydro-6-oxo-3-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$O$$

$$O$$

$$O$$

$$O$$

RN 455265-52-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methyl-2-pyridinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-53-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (3-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-54-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-55-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-, (4-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-56-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-57-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-, (4-methylphenyl)methyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-58-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-cyano-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-59-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & C1 \\ & & & & \\ Ph-CH_2-O-C & & & \\ & & & \\ O & & & \\ \end{array}$$

RN 455265-60-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-(hydroxymethyl)-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ N & & & \\ \hline \\ CH_2-OH & & & \\ \end{array}$$

RN 455265-61-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-,

phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-62-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(2-pyridinylamino)methyl]-, phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-63-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(trifluoromethyl)-2-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-64-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[(methylamino)methyl]-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ N & & & \\ N & & & \\ CH_2-NHMe & & & \\ \end{array}$$

RN 455265-66-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(2-pyrimidinylamino)methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-67-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[(4-pyridinylamino)methyl]-, (4-ethylphenyl)methyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455265-68-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloro-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \text{C1} \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & & \\ \text{O} \end{array}$$

RN 455265-69-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3,4-dihydro-3-oxopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} \\ & & \\ & & \\ \end{array}$$

RN 455265-70-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[(dimethylamino)methyl]-4-pyridinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} CH_2-NH & CH_2-NMe_2 \\ \hline \\ Ph-CH_2-O-C & \\ O & \\ \end{array}$$

RN 455265-71-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-72-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-hydroxy-4-[(4-pyridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{OH} & \text{CH}_2-\text{NH} \\ \hline \\ \text{Ph-CH}_2-\text{O-C} \\ \text{O} \\ \end{array}$$

RN 455265-73-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$C1$$
 $C-O-CH_2-Ph$
 $NH-CH_2$

RN 455265-74-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 455265-75-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{N} \\ \text{N} \\ \text{N} \end{array}$$

RN 455265-76-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-77-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$CH_2-NH$$

$$C1$$

RN 455265-78-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-bromo-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-79-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-80-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O & Me \\ \hline N & NH-CH_2 & N-C-O-CH_2 & Me \\ \hline N & N & N & N \end{array}$$

RN 455265-81-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-amino-6-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & & \\ & & & & \\ N & & & & \\ N & & & \\ N & & & \\ N & & & \\ Me & & & \\ \end{array}$$

RN 455265-82-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridazinylamino)methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 455265-83-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-84-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$Ph-CH_2-O-C$$

$$O$$

$$Ph-CH_2-O-C$$

$$O$$

RN 455265-85-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-cyclopropylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-87-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(lH-pyrrolo[2,3-d]pyrimidin-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-88-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-hydroxy-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455265-89-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

$$N$$

RN 455265-90-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455265-92-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-imidazo[4,5-c]pyridin-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-94-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

F N NH-CH₂ N-C-O-CH₂
$$\stackrel{\text{Me}}{\longrightarrow}$$

RN 455265-95-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-fluoro-2-pyrimidinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} F & O & O \\ N & NH-CH_2 & O & CH_2 \\ \hline \end{array}$$

RN 455265-96-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pteridinylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455265-97-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(1H-benzimidazol-4-ylamino)methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-26-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-,

3-thienylmethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

N

RN 455266-30-5 CAPLUS

CN

1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} C1 & O & C1 \\ N & C-O-CH_2 & O \end{array}$$

RN 455266-32-7 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[6-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-33-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(1-methylethoxy)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-34-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455266-35-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-cyanopyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-36-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-37-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxypyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} OMe & & & \\ N & & C-O-CH_2 \end{array}$$

RN 455266-41-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
O \\
C - O - CH_2 - Ph \\
N \\
H_2N - CH_2
\end{array}$$

RN 455266-42-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-ethoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ \parallel \\ C-O-CH_2-Ph \\ \hline \\ OEt \end{array}$$

RN 455266-43-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-cyano-3-methoxypyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-44-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxy-5-methylpyrazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Me NH-CH₂
$$\sim$$
 N \sim C-O-CH₂-Ph

RN 455266-45-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-fluoro-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array}$$

RN 455266-47-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-methoxy-5-methylpyrazinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455266-48-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4,5-dimethyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{O} & \text{O} \\ \text{N} & \text{C-O-CH}_2\text{-Ph} \\ \text{Me} & \text{N} & \text{NH-CH}_2 \end{array}$$

RN 455266-51-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4,5-dimethyl-2-pyrimidinyl)amino]methyl]-, (4-methylphenyl)methyl ester (9CI) (CA INDEX NAME)

RN 455266-52-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(4-methyl-2-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455266-98-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-chloropyrazinyl)amino]methyl]-, (4-fluorophenyl)methyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
C1 & & & \\
N & & C-O-CH_2
\end{array}$$

RN 455268-07-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[(4-pyridinylamino)methyl]-,

(3-fluorophenyl)methyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455265-53-9 CMF C19 H22 F N3 O2

$$\begin{array}{c|c} & & & \\ &$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455290-06-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-2-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ \text{Ph-CH}_2-\text{O-C} & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

RN 455290-08-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$C1$$

$$N$$

IT 455267-68-2P 455267-73-9P 455267-78-4P 455267-93-3P 455267-94-4P 455267-96-6P

455267-98-8P 455267-99-9P 455290-15-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B antagonists)

RN 455267-68-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-fluoro-4-pyridinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$Ph-CH_2-O-C$$

$$O$$

RN 455267-73-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(2-chloro-5-methyl-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 455267-78-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5,6-dichloro-4-pyridazinyl)amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} N & NH-CH_2 \\ \hline \\ N & C1 \\ \hline \\ C1 & C-O-CH_2-Ph \\ \hline \\ O &$$

RN 455267-93-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-chloro-4-pyrimidinyl)amino]methyl]-, phenylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

$$Ph-CH_2-O-C$$

$$O$$

$$CH_2-NH$$

$$C1$$

HCl

RN 455267-94-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-hydroxy-4-[(4-pyridinylamino)methyl]-, phenylmethyl ester, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 455265-72-2 CMF C19 H23 N3 O3

$$\begin{array}{c|c} & \text{OH} \\ & \text{CH}_2-\text{NH} \\ & \text{O} \\ & \text{O} \\ \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455267-96-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(3-fluoro-4-pyridinyl)amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455267-68-2 CMF C19 H22 F N3 O2

$$Ph-CH_2-O-C \\ O \\ F$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455267-98-8 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[3-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455266-41-8 CMF C19 H25 N5 O2

$$\begin{array}{c|c}
O \\
\parallel \\
C-O-CH_2-Ph \\
N \\
H_2N-CH_2
\end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455267-99-9 CAPLUS

10/079,452 (claims 40 & 44)

CN 1-Piperidinecarboxylic acid, 4-[[[6-(aminomethyl)pyrazinyl]amino]methyl]-, phenylmethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 455266-32-7 CMF C19 H25 N5 O2

$$\begin{array}{c|c} \mathsf{H_2N-CH_2} & & \mathsf{O} \\ \mathsf{I} & \mathsf{C-O-CH_2-Ph} \\ \mathsf{N} & \mathsf{NH-CH_2} & & \mathsf{N} \end{array}$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

RN 455290-15-0 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[(5-methyl-4-pyrimidinyl)amino]methyl]-, (4-chlorophenyl)methyl ester (9CI) (CA INDEX NAME)

IT 455267-76-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B
 antagonists)

RN 455267-76-2 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[5-chloro-2,6-bis(methylthio)-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

IT 455267-07-9P 455267-08-0P 455267-15-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-acyl-4-(heterocyclylaminomethyl)piperidines as NMDA/NR2B antagonists)

RN 455267-07-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-hydroxy-4-[[(2,3,5,6-tetrachloro-4-pyridinyl)amino]methyl]-, phenylmethyl ester, (3R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 455267-08-0 CAPLUS

CN 2-Pyridinecarboxylic acid, 4-[[[1-[(phenylmethoxy)carbonyl]-4-piperidinyl]methyl]amino]- (9CI) (CA INDEX NAME)

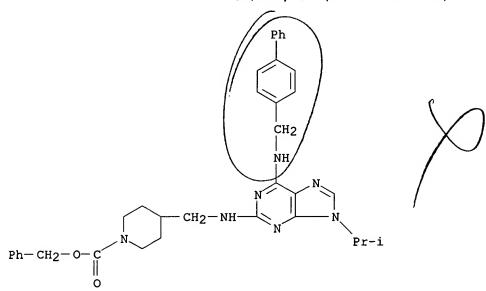
RN 455267-15-9 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[2-[[(2,4-dimethoxyphenyl)methyl]amino]-6-methyl-4-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2002:522682 CAPLUS
ΑN
     137:78811
DN
     Preparation of 2,6,9-trisubstituted purine derivatives for therapeutic use
ΤI
     as potent antiproliferative agents
IN
     Trova, Michael Peter
PA
     USA
so
     U.S. Pat. Appl. Publ., 150 pp., Cont.-in-part of U.S. Ser. No. 493,790.
     CODEN: USXXCO
DТ
     Patent
     English
LΑ
FAN.CNT 2
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
     ______
                                          _____
    US 2002091263 A1 20020711
WO 2003022216 A2 20030320
                                     US 2001-950549 20010911
WO 2002-US28634 20020909
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
            NE, SN, TD, TG
PRAI US 1999-124829P P
                            19990317
     US 2000-493790
                      A2
                            20000128
     US 2001-950549
                      Α
                           20010911
     MARPAT 137:78811
     2,6,9-Trisubstituted purine derivs., such as I [R = -VCH(R3)(CH2)nCH(R4)Y;
AB
     R1 = H, alkyl, alkenyl, cycloalkyl, etc.; R2 = aryl, heteroaryl; R3 = H,
     alkyl, alkenyl, phenylalkyl, etc.; R4 = H, alkyl; R3(CH2)nR4 = 5-8
     membered carbocyclic or heterocyclic ring; A = CH2, CH2CH2, CH2CH2CH2,
     OCH2CH2, CH(Me), etc.; V = NH, O, S, CH2; X = N, CH; Y = H, alkyloxy,
     amino, acylamino, sulfonylamino, etc.; n = 0-3] which are inhibitors of
     cyclin/cdk complexes, were prepd. for pharmaceutical use as antitumor
     agents. Thus, substituted purine II was prepd. via a series of synthetic
     steps which included 6-amination of 2,6-dichloropurine with
     4-I-C6H4CH2NH2.HCl, 9-N-alkylation of the resulting purine with Me2CHI,
     2-amination of the resulting purine with trans-1,4-cyclohexanediamine and,
     finally, arom. coupling of the 4-iodobenzyl moiety with 3-thiophene
     boronic acid. The prepd. purines were assayed for cyclin/cdk inhibition
     and for growth inhibition of HeLa as well as a no. of other cancer cell
     lines.
IT
     441055-93-2P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (prepn. of 2,6,9-trisubstituted purine derivs. for therapeutic use as
        potent antiproliferative agents)
RN
     441055-93-2 CAPLUS
CN
     1-Piperidinecarboxylic acid, 4-[[[6-[([1,1'-biphenyl]-4-ylmethyl)amino]-9-
     (1-methylethyl)-9H-purin-2-yl]amino]methyl]-, phenylmethyl ester (9CI)
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(CA INDEX NAME)



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ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2001:12273 CAPLUS
AN
DN
     134:86271
     Preparation of pyrimidine derivatives as Src-family protein tyrosine
ΤI
     kinase inhibitor compounds
     Armstrong, Helen M.; Beresis, Richard; Goulet, Joung L.; Holmes, Mark A.;
IN
     Hong, Xingfang; Mills, Sander G.; Parsons, William H.; Sinclair, Peter J.;
     Steiner, Mark G.; Wong, Frederick; Zaller, Dennis M.
PA
     Merck & Co., Inc., USA
SO
     PCT Int. Appl., 470 pp.
     CODEN: PIXXD2
DΤ
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
                                          _____
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                           _____
     WO 2001000213
                     A1
                           20010104
                                         WO 2000-US17443 20000626
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             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
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                                          EP 2000-941701
                      A1 20020522
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     US 6498165
                      B1
                            20021224
                                           US 2000-604305
                                                            20000626
PRAI US 1999-141639P
                       Р
                            19990630
     WO 2000-US17443
                      W
                            20000626
     MARPAT 134:86271
     What are claimed are pyrimidine compds. (shown as I), or their
AB
     pharmaceutically acceptable salts, hydrates, solvates, crystal forms and
     individual diastereomers, and pharmaceutical compns. including the same
     and their use as inhibitors of tyrosine kinase enzymes and consequently
     their use in the prophylaxis and treatment of protein tyrosine
     kinase-assocd. disorders, such as immune diseases, hyperproliferative
     disorders and other diseases in which inappropriate protein kinase action
     is believed to play a role, such as cancer, angiogenesis, atherosclerosis,
     graft rejection, rheumatoid arthritis and psoriasis. In I, R1, R2 =
     independently H, halo, OH, SH, CN, NO2, alkyl, alkoxy, acyloxy,
     alkoxycarbonyloxy, carbamoyloxy, alkylthio, sulfinyl, sulfonyl, acyl,
     alkoxycarbonyl, carbamoyl, amino, acylamino, ureido, sulfamoyl,
     sulfonylamino, or R1 and R2 can join together to form a fused
     methylenedioxy ring or a fused 6-membered arom. ring; terms such as
     'alkyl' here and below are further defined in the claims. R3, R5 =
     independently H, C1-C6-alkyl unsubstituted or substituted with 1-3
     substituents, aryl, or R3 and R5 taken together can represent :O; R3 or R5
     can represent a 2 or 3 C methylene bridge forming a ring of 5-8 atoms
     fused to the A ring. R4 = H, C1-C6-alkyl, C1-C6-alkoxyl. X1, X2, X3, X4
     in -X1:X2-X3:X4- are substituted or unsubstituted CH or N where 0-2 of X1,
     X2, X3, X4 are N. X5, X6 = independently N, C, optionally substituted CH.
     A ring = Ph, naphthyl, pyridyl, pyrazinyl, pyrimidinyl, pyrrolyl, thienyl,
     oxazolyl, isoxazolyl, thiazolyl, pyrazolyl, triazolyl, tetrazolyl,
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furanyl, benzothienyl, benzofuranyl, indolyl, imidazolyl, benzimidazolyl, thiadiazolyl. R7, R8, R9, R10 = independently H, halo, OH, SH, CN, NO2,

N3, N2+BF4-, alkyl, alkoxy, alkylthio, sulfinyl, sulfonyl, C1-C6-alkyl, C1-C6-perfluoroalkyl, acyl, alkoxycarbonyl, carbamoyl, acyloxy, alkoxycarbonyloxy, carbamoyloxy, amino, acylamino, ureido, sulfamoyl, sulfonylamino, two of R7, R8, R9, and R10 when on adjacent carbons join together to form a methylenedioxy bridge. N = 0-2. More than 500 example prepns. are given, but no preparative method is claimed and no data relating to the usefulness of the compds. are given.

317825-66-4P, 2-[(S)-1-Phenylethylamino]-4-[5-N-((1-benzyloxycarbonylpiperidin-2-yl)methyl)aminobenzimidazol-1-yl]pyrimidine
317825-67-5P, 2-[(S)-1-Phenylethylamino]-4-[5-N-((1-benzyloxycarbonylpiperidin-3-yl)methyl)aminobenzimidazol-1-yl]pyrimidine
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrimidine derivs. as Src-family protein tyrosine kinase inhibitor compds.)

RN 317825-66-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 2-[[[1-[2-[[(1S)-1-phenylethyl]amino]-4-pyrimidinyl]-1H-benzimidazol-5-yl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 317825-67-5 CAPLUS

CN 1-Piperidinecarboxylic acid, 3-[[[1-[2-[[(1S)-1-phenylethyl]amino]-4-pyrimidinyl]-1H-benzimidazol-5-yl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
ΑN
     2001:12267 CAPLUS
     134:71602
DN
     Preparation and effect of benzimidazolylpyrimidine derivatives as SRC
ΤI
     kinase inhibitorss
     Goulet, Joung L.; Holmes, Mark A.; Hunt, Julianne A.; Mills, Sander G.;
IN
     Parsons, William H.; Sinclair, Peter J.; Zaller, Dennis M.
     Merck & Co., Inc., USA
PA
SO
     PCT Int. Appl., 173 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                      KIND
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                                                             DATE
     PATENT NO.
                                           WO 2000-US17510 20000626
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     WO 2001000207
                       A1
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     US 6329380
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                            20020522
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                            20030128
                                            JP 2001-505916
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     JP 2003503351
PRAI US 1999-141630P
                       Р
                            19990630
                       W
                            20000626
     WO 2000-US17510
     MARPAT 134:71602
OS
     Title Pyrimidine compds. [I; R1, R2 independently = H, Br, Cl, I, F, OH,
AB
     SH, CN, NO2, NH2; R1R2; fused methylenedioxy ring, fused 6-membered arom.
     ring; R3, R5 independently = H, alkyl, aryl; R3R5 = O; R4 = H, alkyl,
     alkoxyl; X1, X2, X3, X4 independently = CH, CBr, COH, CSH, CNO2, N; R7 =
     H, NH2, alkyl, aryl, alkylamino, arylamino; Y = 0, N, CH; Z = CO, SO2,
     bond; m, n independently = 0, 1, 2, 3, 4], or their pharmaceutically
     acceptable salts, hydrates, solvates, crystal forms and individual
     diastereomers, and pharmaceutical compns. including the same, which are
     inhibitors of tyrosine kinase enzymes, and as such are useful in the
     prophylaxis and treatment of protein tyrosine kinase-assocd. disorders,
     such as immune diseases, hyperproliferative disorders and other diseases
     in which inappropriate protein kinase action is believed to play a role,
     such as cancer, angiogenesis, atherosclerosis, graft rejection, rheumatoid
     arthritis and psoriasis. Thus, the title compd. II was prepd. and tested.
IT
     315717-01-2P 315717-39-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. and effect of benzimidazolylpyrimidine derivs. as SRC kinase
        inhibitors)
RN
     315717-01-2 CAPLUS
     1-Piperidinecarboxylic acid, 3-[[[4-(1H-benzimidazol-1-yl)-2-
CN
     pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)
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RN 315717-39-6 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[4-(1H-benzimidazol-1-yl)-2-pyrimidinyl]amino]methyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Page 72

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ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS
L4
     2000:742067 CAPLUS
ΑN
     133:309900
DN
     Preparation of oxopyrimidinealkanoates and analogs as integrin receptor
ΤI
IN
     Zechel, Johann-Christian; Kling, Andreas; Geneste, Herve; Lange, Udo;
     Lauterbach, Arnulf; Graef, Claudia Isabella; Subkowski, Thomas; Sadowski,
     Jens; Hornberger, Wilfried
     BASF Aktiengesellschaft, Germany
PA
     PCT Int. Appl., 301 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     German
LA
FAN.CNT 9
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
     WO 2000061551
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             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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                            20001019
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     EP 1171435
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                            20020409
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                                            BG 2001-105979
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     BG 105979
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     NO 2001004961
                       Α
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PRAI DE 1999-19916719 A
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     DE 1999-19962998 A
                            19991224
     WO 2000-EP2746
                       W
                            20000329
OS
     MARPAT 133:309900
AB
     BGUT [B = a structural element contg. .gtoreq.1 atom capable of forming a
     H-bond under physiol. conditions (sic); G = (un)substituted divalent
     oxopyrimidine group I; T = CO2H or a group hydrolizable to CO2H; U = bond,
     (heteroatom-interrupted) (oxo)alkylene, (hetero)arylene, etc.] were prepd.
     as integrin receptor ligands (no data). Thus, ROCCH(NHCbz)CH2NH2 (R =
     resin) was cyclocondensed with R1CH: CMeCSNHCO2Et (prepn. given) to give a
     resin-bound oxothioxopyrimidine which was treated with BrCN and the
     product condensed with 1-(2-pyridinyl)piperidine-4-methanamine (prepn.
     given) to give, after resin cleavage, title compd. II.
ΙT
     302340-01-8P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of oxopyrimidinealkanoates and analogs as integrin receptor
        ligands)
     302340-01-8
RN
                 CAPLUS
     1(2H)-Pyrimidinepropanoic acid, 5-methyl-2-oxo-.alpha.-
CN
     [[(phenylmethoxy)carbonyl]amino]-4-[[[1-[(phenylmethoxy)carbonyl]-4-
```

piperidinyl]methyl]amino]-, (.alpha.S)- (9CI) (CA INDEX NAME)